THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND COMPETITIVE INTELLIGENCE PERFORMANCE IN THE CONTEXT OF ERITREAN TRADE AND MANUFACTURING INDUSTRIES

By

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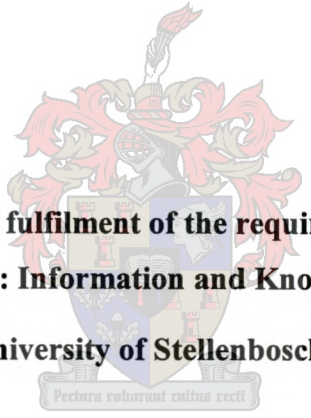

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Declaration

I, the undersigned, hereby declare that the work contained in this assignment is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

Signature: **Date:**

Abstract

In our contemporary globalized world, Eritrean enterprises are challenged with high competition from within and from foreign counterparts. Consequently, only those companies that predict the future and take proactive decisions can win the game. However, none of these organizations have applied formal competitive intelligence practice in a proactive, disciplined, and systematic fashion to defend against threats as well as to exploit opportunities, though informally they do engage in the practice.

Some of these informal competitive intelligence practicing companies are relatively 'good performers' and others are 'poor performers'. The level of this competitive intelligence performance is believed to be influenced by organizational culture. This implies that employees who are encouraged and trained to have shared values, beliefs, norms and practices are in a better position to share information and interact with each other with open minds. Here, the free flow of information is the basic ingredient that helps to produce effective competitive intelligence.

In an attempt to explore if a statistically significant relationship exists between organizational culture and competitive intelligence performance, a literature study was first carried out to learn from other scholars' work. The literature review was then followed by an empirical study. This empirical part of the study attempted to investigate if Eritrean manufacturers and traders perform informal competitive intelligence practice as well as if there is a positive relationship between the independent and dependent variables. Data was collected through a questionnaire from top level managers. Of the 39 questionnaires distributed, 23 organizations properly completed the questionnaire. Statistical analysis was then computed using the SPSS package to determine the correlations.

The relationship between organizational culture and competitive intelligence was determined in two ways: first, it was correlated in terms of the six selected organizational culture dimensions (employee involvement, human resources, organizational focus, communication flow, reward, and trust) and competitive intelligence; and second, in terms of scores of each firm's organizational culture and competitive intelligence. Moreover, the level of the score determined whether these companies performed well or not.

In both cases a positive relationship was found between organizational culture and competitive intelligence performance. These results supported the hypothesis that organizational culture does contribute to improved competitive intelligence practice. Furthermore, the finding suggests that Eritrean firms are doing moderately good in their informal competitive intelligence.

Opsomming

In ons huidige globaliseerde wêreld kry Eritrea se ondernemings te doen met sterk kompetisie van binne and van buite die land. Dus floreer net daardie ondermemings wat die toekoms kan voorspel en pro-aktiewe besluite kan neem. Dit is egter waar dat nie een van hierdie organisasies formele, kompeterende intelligensiepraktyke op 'n pro-aktiewe, gedisiplineerde en sistematiese wyse toegepas het om hulself teen dreigemente te beskerm en om geleenthede uit te buit nie; informeel het hulle wel.

Sommige van hierdie maatskappye wat informeel kompeterende intelligensie toepas, is betreklike 'goeie presteerders ' en ander is 'swak presteerders'. Daar word geglo dat die prestasievlak van hierdie kompeterende intelligensie beïnvloed word deur organisatoriese kultuur. Die implikasie is dat werknemers wat aangemoedig en opgelei is om aan dieselfde dinge te glo en wat dieselfde waardes, norme en praktyke deel, in 'n beter posisie is om inligting te deel en met 'n ope gemoed met mekaar om te gaan. Die vrye vloei van inligting is die basiese bestanddeel wat help om doeltreffende kompeterende intelligensie te produseer.

Met die doel om na te vors of daar 'n statisties sinvolle verhouding bestaan tussen organisatoriese kultuur en kompeterende intelligensie, is daar eers 'n literatuurstudie gedoen om uit ander se werk te leer. Na die literatuuroorsig is daar 'n empiriese studie gedoen. Die empiriese deel van die studie poog om na te vors of die vervaardigers en handelaars informele kompeterende intelligensie toepas en ook of daar 'n positiewe verhouding bestaan tussen die onafhanklike en afhanklike veranderlikes. Data is versamel deur middel van 'n vraelys aan hoëvlak bestuurders. Nege-en-dertig vraelyste is uitgestuur waarvan 23 volledig deur die organisasies ingevul is. Statistiese ontleding is toe gedoen om deur middel van die statistiese pakket SPSS die korrelasies te bepaal.

Die verhouding tussen organisatoriese kultuur en kompeterende intelligensie is op twee maniere bepaal: dit is eers gekorreleer in terme van die ses geselekteerde organisatoriese kultuurdimensies (werknemer betrokkenheid, menslike hulpbronne, organisatoriese fokus, kommunikasievloei., beloning en vertroue) en kompeterende intelligensie; en tweedens in terme van tellings van elke maatskappy se organisatoriese kultuur en kompeterende intelligensie. Die vlak van die telling het bepaal of die maatskappy goed presteer het of nie.

In albei gevalle is daar gevind dat daar 'n positiewe verhouding bestaan tussen organisatoriese kultuur en prestasie in kompeterende intelligensie. Hierdie bevindinge ondersteun die hipotese dat organisatoriese kultuur wel bydra tot verbeterde intelligensiepraktyke. Verder bewys dit dat ondernemings in Eritrea redelik goed vaar in informele kompeterende intelligensie.

Dedicated to Dawit, Hesron, Hermela and Samrawit.

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CHAPTER ONE

BACKGROUND, RESEARCH PROBLEM AND OBJECTIVES

1.1 Introduction

In this chapter a brief history of the Eritrean trade and manufacturing sectors is discussed. To highlight the procedural mechanism that this paper used to identify, analyse and present its findings, concise descriptions of the research problem, development of the instrument for measurement, the objective and delimitation of the research are presented.

1.2 Background of Eritrean Trade and Manufacturing sectors

Eritrea is a country with a population of 4 million. It is centrally located in the Horn of Africa and the Middle East, with a coastline of 1200 kilometres and it covers an area of about 124,300 square kilometres (Eritrea, 1994:3).

A paper submitted by the Eritrean delegation to a meeting of PTA/COMESA (1994:3) indicated that prior to its occupation by Italy, the country had already established trade contacts with Greece, Egypt, some Middle East countries, India etc. It was however, at the time of the Italian occupation of the country (1889) that a strong economic infrastructure was established. This led to the emergence of modern industries and improved transport facilities that ushered in strong economic activity and trade. With the defeat of Italians in 1941, Eritrea was placed under British administration up to 1952. During this period, activities of trade and industry almost stagnated and the country lost much of its infrastructure and export markets. The Eritrean economy was at its worst level during the period of Ethiopian socialist rule (1974-1991). During that time, foreign trade sectors of the country collapsed rapidly. As the result, Eritrea lost its previous competitive advantage and market share, and most of its manufactured products were confined to domestic markets.

The conflict (1998-2000) between Eritrea and Ethiopia and the 'no war' and 'no peace' situations followed thereafter might also have contributed to organizations not fully exploiting the advantage of information (intelligence) as a decision-making mechanism to help their businesses flourish.

1.3 Research problem and hypotheses

Since the various factors in the environment of managerial decisions are constantly changing and, therefore, unpredictable, managers need to possess intelligence in decision-making if they wish to succeed in their business pursuits and endeavours (Kyambalesa, 1993:23). Managers of Eritrean enterprises in the command economy era however were not in a position to enjoy such an advantage. The system in place was highly centralized to the extent that it was only a "supervising Ministry" had a full mandate to control the whole system of each organization (Eritrean Enterprise, 1996: 4). Such an inflexible hierarchical mechanism is believed to be one of the obstacles that hinder organizations from having a favourable organizational culture. A recent study conducted by Spio-Garbrah (1996:12) also revealed that Eritrean traders and entrepreneurs lack access to information. Deshpande (2000:12) on his part stated that Eritrean business communities don't know where to get proper trade information.

Literature studies, on the other hand, underscore that in our contemporary globalized world firms with information (intelligence) are more powerful than those without. To have information as a tool of success however, organizations need to have a favourable organizational culture whereby individuals and departments can exchange information to create knowledge and intelligence. Kahaner (1996:186) for instance says "Culture plays a large role in how competitive intelligence is practiced." Miller (2000:42) also supports the effect of culture on the intelligence function of an organization.

The hypotheses that were explored during the course of this study concerning the question "Do the selected Organizational Culture dimensions relate to competitive intelligence performance?" were:

Hypothesis 1: Unfavourable organizational culture impacts negatively on the practice of competitive intelligence by Eritrean manufacturers and traders.

Hypothesis 2: The selected dimensions of organizational culture are positively related to competitive intelligence performance.

1.4 Measurement

Many studies indicated that there are quite a number of dimensions by which culture could be measured. Van der Post, De Coning and Smit (1998:31) said "At the overt level, culture

implies the existence of certain dimensions or characteristics that are closely associated and interdependent. Generally, however, research on organizational culture does not specify a set of uniform dimensions or characteristics. It is evident that researchers have applied a large number of dimensions of organization culture that cannot be neatly categorized in terms of an overall organizational culture theory."

For this study, culture dimensions have been selected from the literature review to measure if an organization deliberately and purposefully manages its culture. Such measurement has been conducted through a questionnaire which was developed based upon the culture dimensions identified. With regard to competitive intelligence, the questionnaire was constructed on the basis of the four phases of the competitive intelligence cycle: Planning and focus, gathering information, analysing information, and disseminating intelligence.

1.6 Objectives of the study

The main purpose of this study was to examine the relationship between selected dimensions of organizational culture and informal competitive intelligence practice in some Eritrean entrepreneurs and traders. The reason why this paper uses the term "informal" is the fact that in Eritrea there is no organization that formally conducts competitive intelligence practice. However, it is obvious that regardless of their magnitude all organizations involved in competitive intelligence practice informally. The intention of the researcher, therefore, was to determine whether this informal competitive intelligence practice and the selected parts of organizational culture are related. In addition to that, the final report can act as a wake-up-call for Eritrean organizations to pay more attention to their organizational culture in order to improve the practice of competitive intelligence in their respective companies. At the same time, it is hoped that the recommendations will move concerned government bodies to take steps to provide organizations with essential support in order to take initiatives to introduce formal competitive intelligence practice.

1.7 Delimitation

This paper is restricted to selected dimensions, which are mainly focused on the communicational and motivational aspects of organizational culture as independent variables. To use other variables as a benchmark for measuring other contributing factors to competitive

intelligence practice is beyond the scope of this research. Moreover, the administration of the questionnaire, which was directed only to a single top manager of each organization, though measuring different perceptions of key stakeholders, might yield more results.

CHAPTER TWO

LITERATURE REVIEW ON ORGANIZATIONAL CULTURE

2.1 Introduction

This chapter deals with the definitions of organizational culture, and how it affects people's interaction and communication. Values, beliefs, norms, practices, and behaviours are the essence of organizational culture that makes or breaks the active involvement of employees in exchanging information. Information-sharing however will only evolve in an environment where motivational incentives are in place. Many researchers agree that organizational culture can indeed make a difference to the performance of an enterprise.

2.2 Defining organizational culture

A number of researchers defined organizational culture from different viewpoints. Organizational culture is a system of shared actions, values and beliefs that are nurtured within an organization and determines the behaviours and the day to day activities of members.

Organizational culture can be broadly defined as the collectivist of norms and individuals' behaviours within an organizational setting and their underlying explicit or implicit rationales such as values, beliefs, and principles (Fahey, 1999:420). Culture is also about 'how things are done around here'. It is about what is typical of the organization, the habits, the prevailing attitudes, and the grown-up pattern of accepted and expected behaviour (Drennan, 1992:3). Similarly, Orna (1990:39) says that any organization has its own, more or less explicit, culture and values; not what it does but the way that it does it. It embraces the way the enterprise regards itself, the people who work for it, and its 'public'; the way it presents itself to them; and the way it treats them.

According to Schein (1999: 42) one reason it takes time before one can become productive in a new organization is because so many of the norms, ways of working, and ways of thinking are unique to that organization and have to be learned by trial and error. Oster (1994:134) stated that corporate culture is hard to imitate. Even the leader of an organization embodies its culture only to a limited extent. Thus, an organization's culture, because it is hard to imitate, may produce a competitive edge. Oster (1994:134) also argues that invisible or intangible

assets like corporate culture are often the only sustainable source of competitive edge, primarily because such advantages are so difficult to imitate.

Culture is both product and process. As product, it embodies the accumulated wisdom of members of an organization. As process, it is continually renewed and re-created as new members are taught the old ways and eventually become teachers themselves (Bolman & Deal, 1991:250). This means that over a period of time in any company people develop particular ways of handling the recurrent work of the organization, and gradually this becomes the 'accepted' way of doing things. By repetition, these ways of doing things become habits and that is what culture is: the habits that have grown up over time and became part of the organization's personality (Drennan, 1992:1).

Culture is the property of a group. Wherever a group has enough common experience, a culture begins to form. An individual, therefore, is a multicultural entity and displays different cultural behaviours depending on what the situation elicits. But if he spends the bulk of his life in a given occupation and organization, he takes many of the cultural themes that others in the occupation or organization share (Schein, 1999:13). Culture is not an individual characteristic, but rather denotes a set of common mental programmes, beliefs, assumptions and values shared by a group of people.

2.3 Characteristics of organizational culture

Different researchers describe the characteristics of organizational culture in terms of the deeply rooted values, norms, beliefs and behaviours residing in an organization and its individual members and almost all have similar outlooks regarding the level and function of these cultural elements within an organization. Thus, while behaviour resides at the surface level, values refer to the deeply held beliefs, which depict the shared mental models that the members of an organization hold and take for granted.

Fahey (1999:420) states that a culture consists of four elements namely behaviours, norms, beliefs and values. According to the researcher, these elements are highly interrelated but they also differ greatly in their visibility and accessibility. He elaborates these elements as follows: Behaviours reside at the culture's surface and refer to the everyday activities of individuals in their organizational capacity, such as what they do and how they do it. Norms, on the other hand, are reflected in general organizational practices or behaviour patterns, such as 'always subjugate your own interests to those of the team, group, or organization'. Norms do not just

happen. They are learned, assimilated, and reinforced. Beliefs are to do with the cause-effect understandings that a group of individuals share about their world. Beliefs are less specific than the norms governing daily behaviour; they offer more general guidelines about how organizational members should act to obtain desired results. And finally, values constitute culture's deepest level. They are defined as what the organization and its members consider important, or profess to care about. Values communicate to organizational members what the organization stands for and what it believes in. Values are the most inaccessible elements of culture.

Choo (2002:54), on his part, indicates that values are the deeply held beliefs about the goals and identity of the organization, and how it should go about attaining those goals. These values are often hard to articulate and even harder to change. Norms on the other hand are derived from values, but have a more direct influence on information behaviours. Norms are rules or socially accepted standards that define what is normal or to be expected in the organization. Norms or rules may be informal or formal. Informal norms or attitudes influence the creation, flow and use of information in individuals and groups. Formal rules, routines, and policies may exist to plan, guide, and control information as an organizational asset. Practices, which are the third character of organizational culture, refer to repeated patterns of behaviour that involve organizational rules, structures, and forms of interaction. They are revealed by observing or describing how people find, organize, use and share information as part of their normal work patterns. Certain organizational practices or policies may act as impediment or incentives to the effective use of information. That is why, Denison (1990:4) says, "Concrete policies and practices are often difficult to separate from the core value and beliefs and the system of shared meaning that supports them".

Kotter and Heskett (1992:4) indicate that organizational culture has two levels, which differ in terms of their visibility and their resistance to change. At the deeper and less visible level, culture refers to values that are shared by the people in a group and that tend to persist over time even when group membership changes. At the more visible level, culture represents the behaviour patterns or style of an organization that new employees are automatically encouraged to follow by their fellow employees. Each level of culture has a natural tendency to influence the other. This is perhaps most obvious in terms of shared values influencing a group's behaviour and commitment to customers, for example, influencing how quickly individuals tend to respond to customer complaints.

Values are the bedrock of any corporate culture. As the essence of a company's philosophy

for achieving success, values provide a sense of common direction for all employees and guidelines for their day-to-day behaviour (Deal & Kennedy, 1982:21). Organizations derive great strength from shared values. If employees know what their company stands for, if they know what standards they are to uphold, then they are much more likely to make decisions that they will support those standards. One of the most serious risks of a potent system of shared values is that economic circumstances such as a newly competitive market can change while shared values continue to guide behaviour in ways no longer helpful to the organization's success.

Culture is so stable and difficult to change because it represents the accumulated learning of a group - the ways of thinking, feeling, and perceiving the world that have made the group successful (Schein, 1999:21). One must therefore assume, at least in the short run, that culture cannot be changed to meet the demands of management (Jaeger & Kanungo, 1990:132). Thus, organizations which do not have any formal programmes for nurturing and continually updating the culture residing in their workers should not be surprised when more flexible competitors perform well and win their old customers.

2.4 Impact of organizational culture on performance

Culture is integrally entwined in every facet of what an organization does and how it does it (Fahey, 1999:420). In general, when employees start to believe the stories about what the company really values, they soon start doing the same. This belief penetrates deeply and becomes part of the company culture, so that it affects how people act, talk and think (Drennan, 1992:27). Van Der Post et al. (1997:39) reached the conclusion that organizations in which members experience the cultural dimensions to a greater degree are likely to be financially more successful than those organizations where members experience the cultural dimensions to a lesser degree.

Kotter and Heskett (1992:5) indicate three ideas on how organizational culture relates to performance. The first one is goal alignment. This concept implies that strong culture inclines employees to march to the same drummer. Secondly, a strong culture may help an organization to perform because it can create an unusual level of motivation in members. And thirdly, a strong culture can provide the needed structure and controls without having to rely on a stifling formal bureaucracy that can dampen motivation and innovation.

Denison (1990:6) on his part indicates that organizational culture that provides direction,

involvement, consistency, adaptability and innovation by its human resource, contributes positively towards organizational performance. Involvement, according to the researcher, has to do with flexible management style and participation of employees. Organizational effectiveness is, therefore, a function of the level of involvement and participation of an organization's members.

Grindle (1997) looks at the relationship between organizational culture and performance from the perspective of developing countries' context. According to his statement, in an attempt to increase efficiency, effectiveness, and responsiveness of the public sector; many developing countries introduced the so-called "second generation" reform, which has been focused on improving salaries and conditions of employment as well as reducing the size and responsibilities of the state sectors. Nevertheless, these macro-institutional initiatives have not solved the problem of poor performance. Yet throughout the developing world, there were organizations that performed relatively well, despite dauntingly unfavourable contexts and despite overall poor public sector performance. Based on a study conducted in six developing countries, the author reached the conclusion that organizational culture was the main driving force for the success of good performers. Jaeger and Kanungo (1990: 64) also indicate that the poor performance of state-owned enterprises in developing countries has been attributed to cultural factors.

Wilson (2002:60) states that teams of knowledge workers could not perform effectively without norms of truthfulness, openness and trust. Such teams can only perform in hierarchies if they insulate themselves from the prevailing organizational culture. Teams must form, storm, norm, and then perform. At the storming stage, members must learn to be open and truthful about what they believe. Of course this exposes differences of opinion that must be resolved, often heatedly. When the storming is over, the group accepts norms of behaviour for resolving differences. This will lay the ground for open communications that are essential for the team to perform.

On an individual level, organizational culture can impact an employee's participation and involvement (Zamanou & Glaser, 1994:490). The shared perceptions and beliefs that make up an organization's culture are fostered and cultivated by communications and interactions among people inside and outside of the organization. The culture then impacts and can be influenced by people's behaviour regarding various things, such as how to solve problems, how to do a job, and how to communicate (Bates et al., 1995:1574). These in turn, affect an individual's job performance and satisfaction, and then impact on a firm's performance.

Hence, organizational culture can have a positive effect on competitive advantage, increased productivity, and a firm's performance (Yeung, Brockbank, & Ulrich, 1991:61).

Unlike in a weak culture, those employees who know exactly what is expected of them will waste only little time on deciding how to act in a given situation. The researchers estimated that a company can gain as much as one or two hours of productive work per employee per day (Deal & Kennedy, 1982:15). A strong culture, with well-socialized members, improves effectiveness because it facilitates the exchange of information and coordination of behaviour (Denison, 1990:9). In strong cultures, networks carry the beliefs and values that keep the culture alive and shared across levels, divisions, and among people (Deal & Kennedy, 1982:98). Building a strong culture implies that values and actions are highly consistent. This form of consistency has often been mentioned as a source of organizational strength and as a way of improving performance and effectiveness (Denison, 1990:4).

There are, however, a number of controversies surrounding the relationship between culture and performance as well as the type of indicator used to show performance. Some argue that cohesive cultures result from organizational success. Others point out that cohesive cultures produce better performance only if the cultural patterns fit the demands of the marketplace (Bolman & Deal, 1991:268). Regarding indicators, many scholars argue that organizations are primarily information-processing and decision-making entities, and thus the characteristics of these processes will be the foremost determinants and indicators of effectiveness. On the contrary, another "reactive" theory of organizational effectiveness comes from the population ecology perspective. According to this argument, it is the environment that determines which types of organizations will survive and which will not, and that the actions of individuals and organizations are relatively weak determinants of effectiveness. Hence, certain "species" of organizations will grow to fill a particular "niche" and will decline accordingly when the demand for that particular type of organization diminishes (Denison, 1990:37).

Jaeger and Kanungo (1990:134) look at the above argument from the point of view of cultural differences between developed and developing countries. According to them, most western industrialized societies generally see themselves as being in control of nature and of events. In contrast, developing societies are more influenced by events in the environment. Thus, in developing countries, the notion of context dependence will be more likely to guide behaviour in organizations. The writer of this paper however, argues that whether it is in the developed or developing world, those organizations that have implemented competitive intelligence programs are in a better position not to remain passive and at the mercy of the environmental

influence. As a future oriented mechanism, competitive intelligence can help a company to act proactively upon events that might have positive or negative effects, especially if it has a culture of sharing information among its human resources.

2.5 The human aspect of organizational culture

2.5.1 Importance of the people

If organizational culture impacts a firm's performance or productivity, it is because the organizational culture impacted individuals first, which in turn affected a firm's overall performance, productivity, or competitive advantage (Sheng, 2003:44). Work is done by people who make up an organization, not by the organization itself. Organizational culture is ultimately manifested, represented and maintained by sense-making efforts and actions of individuals (Harris, 1994:315).

Because organizational culture acts as a filter through which members grasp the realities inside and outside the organization, organizational culture affects practically all aspects of the way people of a group interact with each other (Weber & Pliskin, 1996). People at all stages of their careers, therefore, need to understand culture and how it works because it is likely to have a powerful effect on their work lives. When they choose a company, for instance, they choose a way of life. Culture then can make them fast or slow workers, tough or friendly managers, team players or individuals. By the time they've worked for several years, they may be so well conditioned by the culture they may not even recognize it (Deal & Kennedy, 1982:16).

Any organization attempting to create an information and learning culture that promotes knowledge creation and use, will need to start with the recognition that information use is a social, collective sense-making process. Education and training may be required to raise the awareness of the value of information, to increase understanding of what information has potential significance, and to enhance information-searching and information-use skills (Choo, 2002:256). Information sharing is not something that always goes smoothly and willingly. There are people who want to maintain communication in a way that fits their own personal interest. Obviously, such activities lead to misunderstandings and tensions among individuals as well as between employees and an organization.

2.5.2 Tension between individual members and an organization

Organizations and people depend on one another. People look to organizations to satisfy a variety of economic, personal, and social needs, and organizations in turn cannot function effectively without the energy and talent of their employees (Bolman & Deal, 1991:130). Most of us have learned to think of organizations as places where large numbers of people efficiently cooperate with one another to achieve some shared objectives. But organizations also are sites in which multiple different tensions exist, tensions that must be managed successfully if the organization is to succeed in meeting the goals of its members. The fundamental tension that faces all organizations is a tension between individual members' needs and the need of their organizations. People have needs for autonomy to control their destinies, creativity of doing something better than or in a different way than anyone else, and sociability of interpersonal relationships with other people (Conrad & Scott, 1998:7).

Similarly, most people conduct their interpersonal relationships in ways that fit their own styles and preferences, sometimes disregarding what the organization or anyone around them wants. Those needs often conflict with organizational rules and requirements (Bolman & Deal, 1991:134). Organizational researchers in the Western societies seem to have rediscovered the idea that people, including workers, are "actors". This means they are living, thinking beings who make decisions about how to act based on their beliefs, values, and ways of interpreting the information and events that they encounter (Conrad & Scott, 1998:114). And as Max Weber and others had argued a century ago, those beliefs, values, and frames of reference were influenced significantly by the taken-for-granted assumptions characteristic of the societies from which organizations drew their members. The first discovery revealed that organizational culture could create a sense of community that bound employees together in a coordinated and controlled group. And the second assumed that although people often have similar interpretive frames because they have had similar societal backgrounds and experience, they also interpret their surroundings in their own, individual way. Consequently, while managers could attempt to persuade their employees to accept certain beliefs and values, the workers might interpret and respond to management's efforts in very different ways than they intended.

Tensions could also be created because of members of an organization's different needs, perceptions and expectations. These mean that in such a situation communication will not always be perfect. For example, superiors might wish to get certain information from subordinates. The subordinates might not wish to give this information. On the other hand,

subordinates might feel that they are entitled to certain information. However, superiors might feel that this information is confidential, and therefore refuse to give it to them (Fielding, 1993:41). As a result, shared beliefs that are a crucial part of an organization's knowledge and intelligence cannot prevail. People in an organization use these assumptions and beliefs to make sense of their environment, and to figure out the form and purpose of their actions (Choo, 2002:271). When the fit between the needs of an organization and the needs of its participants is matched, both benefit: individuals find satisfaction and meaning in work, while the organization is able to make effective use of the talent and energy of its managers and workers (Bolman & Deal, 1991:179).

Strongly held beliefs, a sense of mission, or the consistency that comes from a set of shared values and beliefs do provide a fundamental basis for coordinated action within an organization (Denison, 1990:6). One of the importance of shared norms, beliefs and expectations have been shown to shape employee orientations towards communication and information sharing and determine the extent to which individuals direct their behaviour toward achieving goals defined by the organization rather than to those that conform exclusively to self interest (Grindle, 1997). This conformity would be successful if there is a proper way of managing a culture in an organization.

2.5.3 Managing culture

Every organization has a quite different internal work culture of its own which influences the behaviour or practices of both the management and the workers (Jaeger & Kanungo, 1990:2). This culture creates value because it allows that organization to strike deals with its suppliers, customers and employees that are not available to other firms. Thus, culture is an organizational asset. An organization with a culture that stresses management stability, for example, can ask for greater specific investments by its managers than an organization with higher manager turnover. An organization with a tradition of social responsibility also may be able to strike a better deal with a local community in a location decision than a rival with a reputation as irresponsible (Oster, 1994:134).

Many agree that people's wonderful ideas and enormous potential is a key to better performance. What they need is positive leadership to cultivate their potential, encouragement to voice their ideas, and continuing support as they follow through on their own creativity (Bennis & Mische, 1995:77). In relationship between culture and leadership, although some

argue that leaders are shaped by culture, others believe that, at least under some conditions, leaders can shape culture. So, leadership in this regard is very important (Bolman & Deal, 1991:268). Probably the hottest topic in organizations and management training during the 1980s was the concept of organizational culture. An entire industry of training programs, videotapes, consulting firms, and speakers is devoted to teaching employees how to "manage" the cultures of their organizations. These activities have been valuable because they have focused attention on the intangible and human aspects of organizational life. Managers have started to realize that employees' beliefs about how their organization operates are important, even more important than how official documents say it does (Conrad & Scott, 1998:113).

McMaster (1996:6) believes that the management theory that we have today is out of date and is based on design principles that are not appropriate for the current state of thinking and technology. This inherent theory is based on the view of an organization as a production machine and people as the major part of the machine. The management theories that accompany this thinking treat people as tools to serve the goals of the systems. As the result of this thinking, management considers systems as controls on people, communication as directional, authority as hierarchical, and reward systems as a means for motivation. Hence, the job is to engineer a production machine where the parts, including people, will act in reliable and predictable ways. There is no allowance for creativity or intelligent reaction to unpredictable changes in the environment. Denison (1990:16) also added a similar concept by saying that people are treated as expenses rather than assets, and are thus managed with an eye to reducing cost rather than increasing return on assets.

Fielding (1993:35) states that studies of organizations in the early part of this century emphasized a rigid structure, order, and precise, scientific reasoning. They paid little attention to communication in organizations. Workers were considered to be little more than extensions of machines. Later theorizers however, began to stress the importance of human factors in organizations. They suggested that the existence of formal lines of communication within a formal structure was not enough to guarantee that a job would be done. People's needs, interests, and viewpoints are important in the functioning of an organization. These latter theorists have stressed participative styles of management that strive to generate an atmosphere of trust and confidence. If this type of atmosphere is generated, motivation will be high.

Jones and Tilley (2003:89) recommend that general managers engage with the strategic issues involved in the management of people, with the aim of introducing 'people issues'. This is

reinforced through the promotion of a unitary view of organizational and employee goals, achieved through the active management of 'the culture' in the work place, 'winning the hearts and minds' of employees to encourage greater commitment to organizational goals. A recent research project, conducted in more than 50 organizations by De Long and Fahey (2000), confirmed that most managers have recognized organizational culture as the major barrier to creating and leveraging knowledge assets.

It is only when everyone is involved in doing things differently in a business that truly the culture has moved, both in depth and for the long-term. But, unless there is a motivational scheme in place, people might not be inspired to involve in an open communication and information-sharing process.

2.5.4 Motivation for better communication and information sharing

No delays in waiting for orders from above or loss of information about the current situation in the down-top communication can occur if employees on every level of an organizational hierarchy know where the organization is going. True employee empowerment and participation is necessary in order to make decisions faster on lower levels of the organizational hierarchy. Drennan (1992:89), however, believes that many companies treat employee communication as if it were an 'add-on' to the business, something done 'because it is a good thing', or 'to keep employees informed'. But communication is not something that is confined simply to what is said in monthly meetings or team briefings, it goes on continuously in every business, every day of the week, every hour of the day.

The reason why effective communication is central to all organizations is the fact that it makes organizations possible and creates well-motivated people who can work together (Fielding, 1993:27). And the most important environmental factor affecting human communications at work is the culture of the organization. Is there a culture of individualism, or team work? Are people generally supportive and trusting of each other, or competitive? Are people open, honest and truthful about what they believe, or does a blame culture make people secretive, devious and careful about what they say (Wilson, 2002:60)? If an atmosphere of participation is to be created, then there needs to be a great deal of open communication. This communication should take place in an atmosphere of trust. People also need to work together in an atmosphere of understanding. Teamwork needs to be encouraged and the goals should be set by the whole group, rather than imposed on them (Fielding,

1993:35).

Many researchers involved in the field of knowledge management believe that employees share information in an easy way if there is trust and motivation within organizations. In strict command-and-control hierarchies, for instance, there are always more senior people around, who have the power to promote or fire an employee. This has two obvious effects: an employee will not disagree with his boss's ideas; and he will not contribute to a colleague's ideas, because he will benefit more if his own idea prevails (Wilson, 2002: 61). This means, because knowledge is intimately connected with people's egos and occupations, knowledge sharing does not flow easily across role or functional boundaries. It is important, therefore, to create reward systems in order to encourage employee behaviour (Davenport & De Long, 1998). The things that an employee has previously been rewarded for in his business are what have helped to produce the culture he has now (Drennan, 1992:185).

Trust perhaps is the single most important sub-factor that determines the success of knowledge management initiatives. Persuading people to share their knowledge requires not only new processes, but also a new treaty between employers and employees, as well as between employees and employees. This means that employees need reassurance that they are still valued after they give up their knowledge (Martin, 2000; Davenport and De Long, 1998). The importance of trust is also reaffirmed by De Long and Fahey (2000) who say that the level of trust that exists within an organization is greatly influenced by the amount of knowledge that was shared, both between individuals and from individuals into an organization's knowledge management initiative.

Oster (1994:147) suggests that an organization that wants to make its staff realize the importance of competitive intelligence has to put incentives in place for motivational reasons. This motivation and awareness will help to make people willing to exchange information as freely as possible. Making the whole organization believe in the value of competitive intelligence means to have a network of humans who are willing to search their memories and give the pertinent knowledge to the relevant person. Too often, a decision maker does not have the necessary information because the person who could give it either does not know its importance or does not know who needs it. Choo (2002:256) also stressed that organizational norms and structures may have to be modified to produce the cultural shift: information gathering and sharing could be formally recognized in job descriptions; forums and group or team structures may be initiated to facilitate information sharing and cooperative collaboration which is important for the practice of competitive intelligence.

2.6 Conclusion

Many writers claim that in our modern society, knowledge and intelligence are factors needed for an organization to gain a competitive edge. They also agree that unless there is an open way of sharing information among stakeholders, it is difficult to create knowledge and intelligence. But, only people with shared values and beliefs can easily communicate with each other in a smooth and open manner. Therefore, organizational culture, which comprises values, beliefs and behaviours is the main driving force for the success of competitive intelligence.

CHAPTER THREE

LITERATURE REVIEW ON COMPETITIVE INTELLIGENCE

3.1 Introduction

The following chapter will elaborate on the cycle of the competitive intelligence process. First, a definition of the practice is presented to make it clear what competitive intelligence is all about. This is followed by an analysis of the four stages: planning, gathering, analysing, and disseminating. Finally, the chapter is concluded by emphasizing the relationship between organizational culture and competitive intelligence.

3.2 Defining competitive intelligence

Whenever there is more than a single source of product or service, competition is an inevitable and natural consequence (West, 2001: xi). The growth of an enterprise therefore, often depends on its ability to gain a competitive edge by establishing new standards of performance in the market place. To achieve this, an enterprise needs not only to master its own activities, but also to have relevant information about competitors to position itself and its products or services against competitors (Du Toit, 114). Organizations that don't understand the new discipline of modern business such as flexibility and responsiveness to customers will eventually disappear, as other organizations take over their role by offering better perceived value to the market (Wilson, 2002:25). Organizations that practice competitive intelligence are in a better position to address such issues.

Competitive intelligence management is a well-established function in enterprise. In developed countries, managers realize that if they do not monitor the actions and activities of their competitors, their strategic plans would fail. However, enterprises in developing countries continue to be surprised by undesirable changes in the environment and it appears that the advances in managing intelligence are as yet largely unknown to these countries (Du Toit, 114). It is probably true that even some companies in developed countries do succeed without a formal system for competitor intelligence by relying on the intuition or judgement of a few people. But for most companies this is too great a risk to take, and a formal and efficient system is needed (Pollard, 1999:6). For a successful competitive advantage, an organization's intelligence system must comprise the principles of consistency, longevity and involvement. This means they must gather information constantly; they must invest in the

intelligence program for the long term; and spread responsibility for collection and analysis of information across the entire organization in order to gain competitive edge (Fuld, 1995:420).

The aim of competitive intelligence is to understand customers, regulators, competitors, and so forth better, in an attempt to create new opportunities. In fact, often, the deeper objective of intelligence is the forecasting or predicting of some future events or changes in the marketplace or business environment. One way for an organization to earn higher returns than other similarly placed organizations is for it to see and seize new lucrative opportunities early. But, intelligent organizations succeed not only when presented with opportunity, but also in the face of obstacles or opposition. Intelligent organizations will know how to create opportunity where before there was none and create the change to which others must react, in other words, being ahead of change or even changing the rules of the game. This would be manifested in terms of launching a new market as well as raising the industry standard of services and products (Brown & Eisenhardt, 1998:4; Calof & Viviers, 2001:62; Cook & Cook, 2000:6; Oster, 1994:115).

Oftentimes, loss of market share, lower revenues, competitor movements, and other significant events that impact on a firm negatively are also signals that compel managers to seek input about their business environment (Miller, 2000:31). There are also a number of possible explanations for the emergence of competitive intelligence in organizations. These include: first, the information explosion that is characterized by the increasing availability and accessibility of information from different sources; and second, the very nature of the times in which we are living now, such as the worldwide political and social changes, the increasing pace of business, the increase of global competition from new competitors, and rapid technological change (Du Toit, 2003:113).

But, what is competitive intelligence all about? Pollard (1999:3) defines competitor intelligence as the output of a systematic and legal process for the gathering and analysing of information about the current and potential competitors of a business. These practices help organizations to innovate, to generate knowledge, and to act effectively based on the knowledge they have generated (McMaster, 1996:3).

Competitive intelligence is also necessary to reduce uncertainty and risk in decision-making (Fleisher and Bensoussan, 2002:6). Just as card games are easier to win when players have either seen or deduced their opponents' hands, competition is easier to engage in when the current and future activities of the competitors are anticipated (West, 2001:12).

Effective competitive intelligence is not a function; it is a process. Therefore, it should appear in all aspects of the business as one seamless, continuous activity not relegated to one area, division, or unit. This continuous on-going process of competitive intelligence provides extra insight, which empowers the management to make better-qualified business decisions (Chen, Chau & Zeng, 2002; Kahaner, 1996:23; Kysu, 2003).

Competitive intelligence is not just market research, or business scanning. Competitive intelligence is a process of knowing what the competition is up to and staying one step ahead of them (Teo & Choo, 2001:67). Competitive intelligence is also not industrial espionage. Ninety percent of all information that a company needs to make critical decisions and to understand its market and competitors is already public or can be systematically developed from public data (MacGonagle & Vella, 1998:68). Competitive intelligence programs are the foundation on which organizational objectives, strategies and tactics are built, assessed and modified (Cook & Cook, 2000:5; The society of Canada, 1996).

Today, most organizations realize that they cannot increase growth and profitability without a strong understanding of their competitor's business and activities. However, few firms have applied their knowledge of their competitors in a proactive, disciplined, systematic fashion to achieve a competitive advantage. The complexity of business and an uncertain economic climate, create a need for corporations to become far more sophisticated at scrutinizing their competition. Thus, an effective competitive intelligence program becomes necessary if an organization is to succeed in a changing competitive environment (The society of Canada, 1996).

In summary, the scholars define competitive intelligence as a systematic and ethical process that helps organizations to identify, gather, analyse and disseminate information in order to forecast the future and act upon it.

3.3 Competitive intelligence cycle and its importance

Although the main objective of competitive intelligence is to support decision making, having a formalized competitive intelligence system in place can also help a company improve business performance including:

- To provide early warning signs of opportunities and threats;
- To discover new or potential competitors;

- To better adapt and respond to changes among competitors;
- To learn from the successes and failures of others;
- To look at one's own business practices with an open mind;
- To validate or invalidate industry rumours;
- To plug information leaks within an organization;
- To learn about new technologies, products, and processes that affect a business
- To base strategic planning decisions on relevant and timely competitive advantage; and
- To provide a systematic audit of the organization's competitiveness that gives the CEO an unfiltered assessment of the firm's relative position

(Cook & Cook, 2000:14; Kahaner, 1996:23; Pollard, 1999:8; The society of Canada, 1996).

The four fundamental areas of the competitive intelligence process, identified by Calof (1999) include: first, Receiving the intelligence request within the organization, understanding the question or information need, and identifying how it relates to the organizational culture. Second, Collect information via primary and secondary sources with understanding objectiveness and biases of resource. Third, Analysing the information, searching for gaps, and interpreting the relationship to organization needs. Fourth, Communicating results to decision-making bodies and other end-users. Similarly, Cook & Cook (2000:6) have also described the competitive intelligence cycle as planning and direction, collection and research, processing and storage, analysis and production, and dissemination and delivery.

3.4 Planning and direction

In the process of competitive intelligence practice though, finding any information from different corners seems to be easy; finding information that is relevant and useful is more difficult. Therefore, before starting to gather information, organizations need first to plan in order to decide what types of information might be important to satisfy their requirements. In the absence of a definition of its information needs, an organization may not be able to position its resources and direct the process of competitive intelligence effectively.

Fuld (1995:422) stated that just as companies write a strategic plan in order to apply their limited resources appropriately, so an intelligence program must determine its objectives and

apply its resources in the most efficient and effective manner through needs assessment. A need assessment is a means of gauging how an organization actually handles the internal information flow. Such processes also help organizations to: 1, Determine the most commonly needed information; 2, Identify widely used internal resources; 3, Locate communication channels and the vehicles people use to communicate.

However, effective implementation of competitive intelligence requires not only information about the competitors, but also information on other environmental trends that affect business activities as a whole. These include industry trends, legal and regulatory trends, international trends, technology developments, political developments and bad economic conditions. In the increasingly complex and uncertain business environment, the external factors are assuming greater importance in effecting organizational change. If, for instance, a manager is collecting competitive intelligence in a foreign territory, he has to make sure what benefits competitor organizations can get from their respective governments or regional offices. This will help organizations to gather information in accordance with the needs of that particular context. In line with this concept, Malhotra (1996) said "the determination of competitive intelligence information needs is based upon the firm's relative competitive advantage over the competitor assessed within the 'network' of 'environmental' factors."

On the other hand, assessment also helps organizations to determine the objectives of their competitive intelligence projects or processes, to allocate resources, and to decide which course they should take in fulfilling their task, as well as to establish the purpose of the findings. An intelligence exercise is as good as the initial plan. Accordingly, the content of the ideal intelligence plan should include: background information; the product or service to be covered; the competitors to be covered and any relevant internally available information on them; the overall objectives of the exercise; potential intelligence sources and contacts; confidentiality; timing; budgetary and other constraints (Calof et al., 2002:28; Fuld, 1995:422; Kahaner, 1996:43; West, 2001:147).

Decision-makers do not always know what they want; or the decision-makers know what they want but fail to communicate it effectively to their employees (Cook & Cook, 2000:158). Unveiling information needs in such situations is a complex, fuzzy communication process. Personal information needs therefore have to be understood by placing them in the real-world context in which the person experiences the need, and in the context in which the person will use the information to make sense of his environment and so take action (Choo, 1995:29). To effectively conduct such a task, however, competitive intelligence practitioners need to draw

upon specific sets of skills. For instance, to identify key decision makers and their intelligence needs, an individual must have the skill and confidence to communicate with top administrators. Knowledge of the industry and its specific terminology, as well as an appreciation of corporate power structures and decision making processes will help professionals place intelligence needs within the appropriate context (Miller, 2000:58). Moreover, they must understand what the intelligence will be used for, why it is needed, what kind of intelligence is expected and for whom? When do they need it? Exactly which people or department will use it (Kahaner, 1996:49; The society of Canada, 1996)?

Once competitive intelligence practitioners are ready to start researching, it is advisable to take an inventory of the things they and their co-workers already know (Cook & Cook, 2000:38). Many companies don't realize that there is a wealth of knowledge in their own organizations, and in their customers and former customers. Competitive intelligence practitioners rely on publications, suppliers and customers as the most popular sources of information, followed by company employees, industry experts, the Internet, industry conferences, and commercial databases. In fact an enormous amount of information already exists within a firm but it is usually ignored, unorganised and untapped (Farrell, 2003). To avoid such shortcomings, an organization must conduct a competitive intelligence audit to determine what is actually known about the competitors and their operations (Malhotra, 1996). "An intelligence audit literally means identifying the experts and other sources of knowledge extant throughout your organization." Fuld (1995:423).

3.5 Collection

When an organization has some knowledge of its competitors and its own competitive intelligence needs, it proceeds to the stage of gathering information (Malhotra, 1996). Such information is important in helping firms to know how competitive their respective company is now and how competitive will it be in the coming few years? What is really happening in the market, industry or company? Having reliable information at hand at the right time means staying in a better position to take effective decisions, reduce uncertainty, and be able to move quickly (Tzu, 2003).

Collection involves obtaining the raw information that will be turned into usable intelligence (Kahaner, 1996:53). Although, knowing the right thing at the right time and acting on it is critical to success in the information age, many companies collect a vast quantity of data and

information in an effort to learn more or know more than their competitors. The reality, however, is that very little of that information is used or has any value (Cook & Cook, 2000:2). Organizations should collect all the available information but focus on those issues of highest importance to end users (Calof et al., 2002:28).

A competitive intelligence professional must also create an internal as well as external network of human resources in order to collect rich and valuable data. An internal network helps to energise the people inside the organization to release the information inside their heads (Pollard, 1999:91). External human sources on the other hand consist of everyone who could provide relevant information about the external environment; these sources include customers, suppliers, distributors, competitors and many others. Information from external human sources, especially those that are trusted or perceived to be in the know, can have a large impact on decision-making (Choo, 2002:166). To keep the wheels of the network moving forward however, the organizations have to maintain interest and consider incentives. Team-building exercises should take place at the beginning before managers expect employees to generate intelligence. People need recognition and acknowledgement, which is vital for contributions. In addition to that, companies should provide feedback to those supplying them with information (Pollard, 1999:94).

According to Kahaner (1996:56) companies with competitive intelligence programs engage in two kinds of collection procedures. First, they collect information either for a specific reason or in response to a request from management. Second, they collect information that is saved and built into an ongoing data bank about one company, one industry, and so on. This information is updated regularly so it can be consulted when needed. In general, however, information sources can be categorized into primary and secondary sources. Primary refers to human intelligence, while secondary refers to documentation or archived information.

3.5.1 Primary sources

Primary sources are mainly people who are in a position to provide intelligence when questioned and direct observation of competitors' activities on the ground, from the air or even by satellite. It is about information that has not been changed, altered, or otherwise tainted by opinions or selection. These include the staff of competitor companies and the staff of companies that work with them and have some form of business relationship. It could also be a company CEO, president, government agency, or someone else who has access to

absolute and correct information. The latter includes suppliers, distributors, advisers and customers. Sources that are less direct but also potentially valuable include the staff of organizations whose role provides them with the opportunity to observe the activities of competitors. These include analysts, journalists, consultants, trade association staff, the staff of chambers of commerce and other observers at a national or local level (Kahaner, 1996:53; Miller, 2000:15; West, 2001:52). Obtaining primary resources should be the ultimate goal of organizations, but it is not always possible to find them easily (Kahaner, 1996:54).

According to a survey by the Delphi Group, 58% of the useful knowledge of an enterprise is recorded information and 42% resides in employees' brains (Du Toit, 2003:112). Unfortunately, information acquisition planning typically does not include human resources. Human resources have a potential to filter and summarize information, highlight the most prominent elements, interpret ambiguous aspects, and in general provide richer, more satisfying communication about an issue (Choo, 1995:30).

Governments do manage to gather information, and certain agencies can prove particularly fruitful in exploiting such sources (Cook & Cook, 2000:61; Miller, 2000:117).Government data is considered the primary source of material. Government information collectors usually obtain the information from the industry itself, often through surveys and questionnaires, and that information is about as good as is available anywhere. Government filings in regulatory agencies, for example, are excellent sources of primary information, as are court documents and records (Kahaner, 1996:54).

Unless the source is deliberately lying, primary sources should be considered absolutely accurate. Such sources include: Competitors slips of tongue; items the information gatherer himself observed; things that have been seen at trade shows; as well as photos and unedited videotapes (Kahaner, 1996:54). According to findings of many researchers, in high value-added, strategic projects, 80% of the information used is primary internal and external information sources. In short, if organizations require forward-looking, policy-oriented competitive intelligence, they should gather primary information.

3.5.2 Secondary sources

Secondary sources of intelligence are defined as those that are publicly available. 'Publicly available' means, it is in the 'public domain' and can be accessed by those who make the effort to do so. Kahaner (1996:78) states that just because some information isn't publicly

available doesn't mean that it is private or confidential. All it means is that you must be a little more persistent and clever to find the information that you want.

Typically, secondary sources are published or held in databases. They include all types of written publications and online or disk databases. Information written about companies in directories or in trade association publications, academic papers and theses, newspapers, magazines, television, and radio as well as analysts' reports about companies should be considered secondary information. With the exception of published reports, secondary sources are usually inexpensive to access and are more commonly found than primary information. The main requirement is time. Most of this information is likely to be unstructured and held by individuals in their own personal filing systems (Kahaner, 1996:54; West, 2001:51). Secondary sources also include the background information to support the insights that are gained from the primary sources. This includes: commercial databases and print publications, such as analysts' reports, government publications, industry news letters, executives' reports, executives' speeches, technical reports, and patent reports (Miller, 2000:15).

Secondary sources are not necessarily less important or even less accurate than primary sources. Secondary sources sometimes are better sources of information than primary sources. Media personalities and analysts, for instance, can be valuable resources in a research. They tend to be less biased than other sources and usually have an added value in which they are quite familiar. These people often see an entire industry and can offer sides the information gatherer doesn't see (Cook & Cook, 2000:44; Kahaner, 1996:55).

One of the greatest places for finding experts on a particular topic or for following industry trends is a trade show/exhibition. In such venues organizations can find sales people boasting about their products, marketing people revealing their upcoming marketing strategies and top executives speaking about their corporate strategies, successes and failures at keynotes, seminars or in hospitality suites. Few organizations that are in a position to practice competitive intelligence tools and techniques properly enjoy their trade show benefit. Most spend far more time developing their booth, advertising and trying to identify sale leads (Cook & Cook, 2000:45).

3.6 Analysis

The linkage between the raw material (data) and the value added product (intelligence) occurs when the process of the competitive intelligence cycle has reached the stage of analysis

(Miller, 2000:39). Many researchers believe that this is where 'true' intelligence is created, that is, where information is converted into 'actionable intelligence' on which strategic and tactical decisions may be made (Calof et al., 2002, 28). Therefore, to compete effectively, business needs intelligence. Information or knowledge is no longer sufficient for competing in the intelligence age (Cook & Cook, 2000:2).

Unlike market research, the analytical process in competitive intelligence is not just a one-step process that begins once data collection has ceased. To obtain the best intelligence, analysis and data collection should run hand in hand until a satisfactory result has been achieved or until it is evident that no further progress can be made (Pollard, 1999:136; West, 2001: 115). Therefore, companies should set up a regular competitive intelligence function that gathers and analyses data on an ongoing basis. If the need should arise to deal with immediate needs however, 'special projects' can be set up to satisfy end users (Cook & Cook, 2000:156).

One of the main goals of analysis is to forecast what a competitor is likely to do (Kahaner, 1996:103). This is because in the intelligence age, markets are so competitive and so connected that a technological change or a new entrant in an industry can put organizations out of business before they know what has happened. Those with successful, proactive competitive intelligence processes are likely to respond more quickly to such market changes (Cook & Cook, 2000:117; Du Toit, 2003:113).

In addition to forecasting the future, this phase will also help professionals to identify significant patterns and trends out of intelligence. In other words, it helps to reveal unique insights and unforeseen relationships in data. For example, a nation-wide grocery chain wanted to know what additional type of items deli-counter customers usually purchased. After analysing cash register receipts, the intelligence staff found that they also bought wine. Based on this finding, headquarters ordered the branch managers to relocate the wine section adjacent to the deli-counter. As the result their wine sales soared (Miller, 2000:15).

There are a number of tools and techniques that support the process of competitive intelligence efforts. The society of Canada (1996) categorized the tools and techniques into strategic, product-oriented, customer-oriented, financial and behavioural. Each category therefore, needs to apply different techniques in order to address specific threats and opportunities. For example, to understand a competitor's financial condition and performance, to assess how a firm's financial practices will affect its ability to grow, to understand the

economic characteristics and financial details of a competitor's business units or product lines, and to survive and prosper under price competition, financial analysis technique can be utilized within competitive intelligence.

Although much work has been done in the areas of analysis, there is however, a general tendency in countries where competitive intelligence practices are still in the developing phase to make more use of basic analysis tools. In more sophisticated competitive intelligence environments like North America, Europe and Asia, more advanced analysis techniques are commonly used (Calof et al., 2002:28). In addition to this, Cook & Cook (2000:26) have identified that many organizations spend only about 10 percent of their time on analysis, typically because they are unsure of how to do analysis. They suggested that 35 per cent of all time devoted to a competitive intelligence projects should be spent conducting analysis in order to turn information into intelligence.

Good intelligence usually results from an effective working relationship between intelligence users and intelligence gatherers, whether they are an internal department or an external agency (West, 2001:155). Good analysis also requires a combination of skills that is unique among business professionals. To use an analogy, when you have people over for a dinner, you don't give them a bag of groceries to eat. You give them cooked and seasoned food. In the same manner, you don't give raw data to decision makers. You upgrade it to intelligence, which includes adding insights, suggestions, and recommendations. To do this upgrading, successful professionals must have knowledge about the specific industry and about the firm's current practice and position relative to the topic under consideration. They must understand the various analytical tools to frame the research (Miller, 2000:59). Kahaner (1996:97) argued that good analysts do not necessarily have an MBA in the particular area in which they are involved but have a wide base of experience and knowledge. The author went on by saying that the most important trait of an analyst is to be able to say: "This I think will happen based on what I know. This is what it means to the company." To do this, the competitive intelligence practitioner needs to have personal courage, intellectual fortitude and conviction to take guesses based on analysed information. Although the presenter may not be able to know with certainty what a competitor will do, he should be able to articulate several probable courses of action and their effects.

The value of intelligence depends on its relevance; competence; accuracy; clarity; and timeliness (Wilson, 1997:20). Kahaner (1996:102) underscores that doing an accurate assessment requires that professionals put aside their personal biases and preconceived

notions and look at each case with an open mind. This doesn't mean that a competitive intelligence professional can't build theories along the way based on what he sees or what he knows. It does mean that he must wait until he has solid evidence and a strong logical argument before he comes to any conclusions. Cook & Cook (2000:117), however argue that the business world is not ideal. Waiting for that level of accuracy will result in slow and ineffective action. Therefore, it is better to be nearly right all the time than to be accurate occasionally. This idea also received support from West (2001:123) who states that as with all data, competitive intelligence needs to be accurate to be useful. Unfortunately, by its very nature competitive intelligence is prone to be inaccurate. This is partly because it is difficult to obtain complete information but also inaccurate intelligence about competitors' activities circulates widely in all markets and is often accepted as fact. Therefore, competitive intelligence practitioners, have to use their own intuition to produce credible intelligence in a reasonable time frame and to use the best channel to disseminate their findings to the end users.

3.7 Dissemination

The task of the competitive intelligence professional is not complete until the result of information that has been collected and processed is communicated effectively to those with the authority and responsibility as well as other relevant end users to act on the findings (Calof et al., 2002, 28; Pollard, 1999:184). This is when the competitive intelligence professional gives management the answers to their questions. What is competitor X likely to do? How will competitor Y respond to the organization's price increases? When will competitor Z introduce its new product? This is the time when he presents his logical arguments based on his analysis of raw data. It is the time to defend his logic (Kahaner, 1996:133).

Effective communication in this regard means consideration of what the personnel are trying to communicate and how the customer prefers information to be received in terms of channel and forms (Pollard, 1999:184). There are many ways in which important intelligence can be shared such as written reports, verbal presentations and videos, to name a few. The effectiveness depends as much on the audience as on the nature of the intelligence itself (Cook & Cook, 2000:157).

Managers frequently want a specific piece of information. A good competitor intelligence

professional will find out why this piece of information is wanted and how it will be used. This knowledge on its part helps the practitioner to choose methods of presentation that will be appropriate to the end users (Pollard, 1999:161). The best place to start when determining what method of presentation is desired is to discuss the matter with the decision-makers themselves. Some may prefer formal research reports, brief outlines of the essential facts, or both. If they advise practitioners of their preferences and receive the intelligence as requested, the chance of its being absorbed and acted upon is far greater. Some people are more visually oriented and prefer a short slide show or graphics outlining the findings in charts or graphs. Brief memos may be appropriate in another setting, and some managers should receive findings in one-or-two page intelligence summaries, which provide the recommendations to be acted upon. Other executives are more interpersonal in nature and may just want an informal and brief presentation of the findings in person. They may also require professionals to present their findings at staff meetings. Since people absorb intelligence differently, competitive intelligence professionals should consider the possible delivery options. It might make the chances of the intelligence being understood and acted upon by the decision-makers far better (Cook & Cook, 2000:158; Miller, 2000:16).

When presenting their findings, competitive intelligence practitioners should also take note that the processing and distribution choice will depend on the size of the organization, the importance attached to the use of competitive intelligence and the budget that is available (West, 2001: 171). On the other hand, in a small company or organization, one may be the information-gatherer, analyst and decision-maker, which makes the presentation of findings very easy. In larger organizations, these roles may be filled by numerous people, all of whom feel they have a stake in the outcome. It is also possible that the final decision relating to the competitive intelligence project will be made by a person or people who have not had a significant role in any aspect of the project and its progress. This makes the presentation all the more important (Cook & Cook, 2000:157).

Competitor intelligence needs the right people or it will fail. What is needed are people with good knowledge of the business and with strong communication skills, who are as good with the board as with the employees. They need to have the courage to tell the truth, diplomacy to tell the truth tactfully, and determination to keep on telling the truth (Pollard, 1999:36). Moreover, to effectively disseminate and present the findings, practitioners must have a good grasp of the corporate power structures, the corporate culture, and the mindset of the specific decision makers to whom they report. Business know-how is a critical asset here (Miller,

2000:59). The result must also be clear and focused rather than general. Competitive intelligence analysts must be prepared to deliver good news and bad news equally, if they deliver it in the best interest of their company or client. The presentation must identify the opportunities as well as the threats, and clearly indicate if certain elements of the project or the question remain uncertain (Cook & Cook, 2000:160).

Many scholars agree that the only true measure of the success of competitive intelligence is when it influences action in a beneficial way, or when it sensibly supports a decision to do nothing (Kahaner, 1996:137; Pollard, 1999:183). One of the basic strengths of such benefit is that it allows organizations to act rather than to react to events that can impact on their firm. However, a strong recommendation for action based on rock-solid analysis of wholly verifiable information is worthless if the recommendation is made too late. This is why competitive intelligence projects must be balanced with expectations, and 'being close' is better than 'being accurate' in most cases. In other words, competitive intelligence analysts have to make sure that their findings reach the staff that can use them within an acceptable time-frame (Cook & Cook, 2000:159; West, 2001:170).

If a strategic change is taking place as the result of competitive analysis, all members of the organization should be informed. A wider distribution of information promotes more widespread and more frequent learning, makes the retrieval of relevant information more likely, and allows new insights to be created by relating disparate items of information. Companies that build barriers to this information flow, or think that a high-tech communication technology will substitute for good employee communications, are mistaken. To encourage users to be active participants, it should be made easy for them to comment on, evaluate, and redirect the information they have received. If regional and national staff could communicate about the firm's various initiatives, for example, they might avoid duplicative efforts, share insights and experiences, and benefit from the expertise of distant colleagues (Choo, 1995:33; Cook & Cook, 2000:162; Fuld, 1995:419; Miller, 2000:33; West, 2001: 178).

It is obvious that not all information should be open to all stakeholders to communicate. There is a risk of being exploited by a competitor through what many researchers call counter-intelligence. Often employees are overlooked in getting an education programs that ensures their understanding and implications of any information they reveal. Yet they are the front-line workers who come into regular contact with the people outside the organization. Nothing prevents competitors from calling a number of people in an organization. It is up to the

employers to ensure that employees know what aspects of the business they should not share with spouses, neighbours, friends and especially competitors (Cook & Cook, 2000:220).

Counter-intelligence programs represent a partial but essential defense against competitive intelligence and they should not be confused with counter-espionage. Counter-espionage uses physical and electronic methods to prevent intruders from gaining access to information. Counter-intelligence, on the other hand, is subtler and has to be capable of dealing with intrusions that are neither illegal nor unethical. Counter-intelligence must be placed in company procedures and in the minds of staff, not across the entry points to sites. The objective of this method is to restrict information outflows to those which are essential for them to trade effectively, to protect information until it is too late for competitors to use it effectively and, just possibly, to confuse competitors by using misinformation programs (West, 2001:184).

3.8 Tools and techniques for competitive intelligence

Different types of competitive intelligence tools and techniques are available for different requirements of the purpose of gathering information. But not all these tools and techniques are suitable for all competitive intelligence objectives; it is up to the competitive intelligence-unit to use appropriate tools and techniques that are relevant to the specific intelligence needs. Such determination depends upon various factors such as competitive intelligence needs, time constraints, financial constraints, staffing limitations etc. For instance, companies who are facing financial constraints would preferably use government institutions as a source of information in order to enjoy the advantage of low cost and to get valuable data; while online databases are chosen to get information at the earliest possible time. Likewise, surveys may provide a huge amount of data about products and competitors; interviews would be preferable for gaining a more in-depth perspective from a limited sample; reverse engineering of competitor's products and services may yield important competitive intelligence information about quality and costs. This involves dismantling competitors' products in order to learn their features, the materials that have been used, how they are constructed, the design of components, finishing and assembly method. Therefore, human judgement is an essential element of the decision regarding which competitive techniques to set up in a specific situation (Malhotra, 1996; West, 2001: 106).

Some competitive intelligence professionals think that a company needs a sophisticated system for organizing, storing, and disseminating data. This is not true. In most cases, the simpler is the better (Kahaner, 1996:91). Developing countries in this case can effectively conduct competitive intelligence using traditional ways to solicit and shelve relevant information. In addition to that the newly emerged information technology is also suitable as a tool of accessing and storing information for organizations in developing countries.

Malhotra (1996) indicate that the Internet is both an additional source of information and a cost-effective means of disseminating information to decision-makers. Teo & Choo (2001:68) also stress that small- and mid-sized businesses are interested in making use of the Internet to obtain additional resources. This includes information gathering and intelligence dissemination. Chen et al (2002) however, are sceptical of the claims made by other researchers that the Internet has brought about many technical, cognitive, and organizational challenges. According to their observation, lack of credibility, responsibility and consistency of the overwhelming amount of information in the Internet is a concern which needs to be taken into consideration. This is because filtered and relevant information from a reliable source is the backbone of the third and most important part of competitive intelligence cycle-analysis.

3.9 Relationship between organizational culture and competitive intelligence practice

Culture plays a large role in how competitive intelligence is practiced. This is true not only of how companies view intelligence, but how they use it and what aspect they see as important. Moreover, culture affects how they collect information and, indeed, what they collect (Kahaner, 1996:186). A case study conducted by Miller (2000:42) in a vehicular parts manufacturer shows that culture does affect the intelligence function of an organization.

In order for intelligence to thrive, it typically requires a business culture that understands competitive intelligence and values the process. Given that the best information for intelligence purposes comes from within a human network, those organizations that value and trust employees as a primary source of information, have a greater chance to collect valuable information. Furthermore, to make intelligence visible an organization requires awareness, incentives, appropriate systems, and a supportive culture which are the keys to the intelligence system. Without proper awareness and attitudes that favour both intelligence and

information sharing, it is difficult to develop intelligence within an organization (Calof & Viviers, 2001:65-28; Fuld, 1995:424; Miller, 2000:38).

Understanding other organizations or society's culture is also important for effective competitive intelligence practice as well as gaining competitive advantage. For instance, one could encounter difficulties in collecting information as a result of sensitive culture. Conducting a telephone survey using the methodologies familiar to western culture may not be effective in other countries (Cook & Cook, 2000:192).

For the intelligence process to benefit a firm significantly, it is believed that managers must recognize how certain cultural values can support the functioning of a successful intelligence process. These values include: information sharing, willingness of decision makers to welcome input from staff, responsiveness to marketplace changes and the willingness to adjust organizational process to address these changes; as well as behavioural factors, such as mechanisms to support the gathering and sharing of information, and mechanisms to award contributors and punish hoarders, which are unique to each firm (Miller, 2000:32).

There are few businesses in which one manager; salesperson, engineer or information technology (IT) specialist will be able to address adequately all of the intelligence requirements of an organization. However a team approach is preferable because it serves two purposes: First, it increases the likelihood that the organization as a whole will embrace the concept of competitive intelligence; and second, the actual competitive intelligence function will be more valuable and usable as a result of the input from the team members representing different strategic needs within the organization (Cook & Cook, 2000:209). Those members who share similar values, beliefs and norms have a greater chance to engage in team-work.

Cultures can be very stable over time, but they are never static. Crises sometimes force a group to re-evaluate some values or a set of practices. New challenges can lead to the creation of new ways of doing things (Kotter & Heskett, 1992:7). The inherent capacity of organizational intelligence, however, is greater than the sum of the intelligence, information and knowledge of each individual in that organization that has been "wired in" to the design (McMaster, 1996:3). As the result of such deep-rooted values, changing a corporate culture usually takes three to seven years of hard work. Adjusting people's attitudes and corporate cultural values requires behavioural modification. An organization needs to confront people whose actions inhibit the function and recognize those who foster its success (Miller, 2000:38). Miller added that establishing appropriate norms and reinforcements is a process

unique to each firm; one cannot simply copy the actions of another firm, because its setting, culture, and people are different. The values that support the core aspects of the intelligence function such as gathering and analysing information, as well as generating and evaluating intelligence products and services, are therefore embedded within a fundamental set of corporate culture values that promote a robust and effective firm.

3.10 Conclusion

The explosion of information, the pace of technological development and the growth of global trade mean that today's business environment changes more quickly than ever before. Hence, managers can no longer depend on feeling or presumption when making strategic business decisions. In order to face the future with confidence, organizations need to have a tool that can help them to reduce uncertainty and predict the future. To acquire such a tool at hand, however, they need to recognize the importance of the competitive intelligence process and allow individuals and sections of the organization to engage in the process. Intelligence cannot be realized overnight. It needs to be nurtured in due course along with a favourable organizational culture. In other words, employees need to have shared values and to be encouraged to build a sense of trust with each other if they wish to augment the practice of competitive intelligence.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

The preceding chapter laid the foundation for the research methodology by means of the literature study. This chapter gives an outline of the research design, measurement instruments, pilot test and nature of population.

4.2 Research design

This study looks at actual cases of competitive intelligence actions and selected cultural dimensions and therefore, according to Mouton (2001:50) uses "social actions" as unit of analysis. Therefore, the aim of the "social action" of competitive intelligence is more qualitative descriptive. However, competitive intelligence is a sensitive issue so that, unless there is a technique such as survey in place to help candidates express their opinions without being recognized, it is difficult to collect credible information and willingness to respond to the questions. Hence, using primary data, the hypotheses were tested through survey.

The field experiment research of this study was conducted, based on ex post facto correlation methods. Emory (1980:88) mentioned that most ex post facto designs are used for descriptive studies in which the researcher seeks to measure such items as the frequency of sociological characteristics, or the attitude of people. However, ex post facto studies also include attempts by the researcher to discover causes even when the variable cannot be controlled. This method is viewed as appropriate to find both the degree of organizational culture and competitive intelligence practices. The findings are then compared to see if there is a correlation between independent and dependent variables.

Having said that, the physical presence of the researcher on the sites to administer the questionnaire made its own contribution to enrich the gathering process and increase the validity of the questionnaire. "The use of a 'field-based' methodology to study Competitive intelligence is appropriate because it allows the investigator to observe and consequently capture data about aspects of the competitive intelligence process while ensuring the inclusion of relevant contextual information that cannot be gleaned from surveys" (Ganesh, Miree, & Prescott, 2003).

4.3 Measurement instruments

A questionnaire (Appendix) was used during the course of this study to measure the level of organizational culture and competitive intelligence.

In general, the questionnaire comprises items related both to competitive intelligence practice and organizational culture, and questions regarding respondents' demographic details as well as information about the sources and time spent on the process of competitive intelligence. Regarding competitive intelligence practice, the questions covered four areas of the intelligence cycle: planning and focus, gathering the information, analysing the information, and communicating the intelligence. To determine the level of each firm's organizational culture, on the other hand, an instrument that can yield concrete results was needed. The literature survey revealed that organizational culture dimensions have been used successfully by other researchers. Van der Post et al. (1998:31) for instance, identified 15 dimensions that emerged through a consensus of a panel consisting of human resources experts. The reliability coefficients of the dimensions varied between 0.788 and 0.932, which according to Huysamen (1983:27) is highly significant.

Based on the number of dimensions identified, this paper, after some adjustments, has selected six generic cultural dimensions that are focused on sharing information and motivational aspects of organizational culture. These are: employee involvement; human resources orientation; organization focus; communication flow; trust; and reward. These dimensions have been successfully employed in different studies. Van der Post et al. (1998) for instance, applied culture dimensions such as: employee participation, human resources orientation, organizational focus, performance orientation, and reward orientation among others. Rastogi (2000) implemented employee competence, trust, teamwork, communication processes, motivation, performance expectations and training. Gupta and Govindarajan, (2000) identified the following characteristics as cultural factors: reward systems, processes, and people. Denison (1990:43-45) used job reward, peer work facilitation, organization of work, and communication flow successfully. Weber & Pliskin (1996) executed autonomy in decision-making, Performance Orientation, and Reward Orientation. The writers of this paper do not say that these six dimensions are a comprehensive set measure, but somehow represent the overall make up of organizational culture for this particular study.

The organizational culture questionnaire, therefore, consisted of 23 items that are grouped according to the above stated six dimensions. The questionnaire used a 5-point Likert scale. The scale ranged from strongly disagree (1) to strongly agree (5). In between these two

extreme points, disagree (2), uncertain (3) and agree (4) were placed to measure respondents' views about their respective organizations. A score above 3 thus indicates that respondents agree with the answer, while a score below 3 indicates non-agreement. The score, however, is not intended only to measure the level of competitive intelligence practice and the strength of organizational culture. Rather, it helped to determine whether or not there was a positive relationship (correlation) between independent and dependent variables (Organizational Culture and Competitive Intelligence respectively) regardless of the magnitude of the average result.

4.4 Pilot test

The questionnaire was pre-tested in preliminary interviews with five top managers of different sectors. This preliminary assessment of the questionnaire was conducted in order to minimize the common source of errors indicated by Mouton (2001:103) such as no piloting, ambiguous or vague items, double-barrelled questions; item order effects, fictitious constructs and leading questions. The goal of these precautions is to verify if respondents clearly understand the statement in the questionnaire. In addition to that, the interviews were used to review all questions for relevance and wording. This process was undertaken to ensure clarity and relevance and helped in understanding the constructs of the variables to be included in the questionnaire.

During this pilot testing, a few problems were examined, including the understanding of concepts and procedural difficulties improvements were then made according to the instructions. Copies of the final questionnaire were handed personally by the researcher to the targeted managers of 39 organizations. A follow-up visit was also made one week later to non-responding firms.

4.5 Population

A population, which was comprised mainly of top managers, was randomly selected from the database of the Ministry of Trade and Industry and the Eritrea Chamber of Commerce directory with the aim of representing the target group, which eventually allowed generalizing across manufacturers and traders. This means one questionnaire was administered to a single manager of each organization. The survey was conducted during September and October

2003. All respondents were requested to participate voluntarily without financial or other benefits.

CHAPTER FIVE

MAJOR FINDINGS

5.1 Introduction

This chapter reports the findings of the data analyses and it is organized into the following subsections. First the response rate of the demographic detail is presented. Next, a breakdown percentage of competitive intelligence time is displayed. Thereafter, the research instrument was assessed for reliability. Finally, the research hypotheses were empirically correlated and analysed.

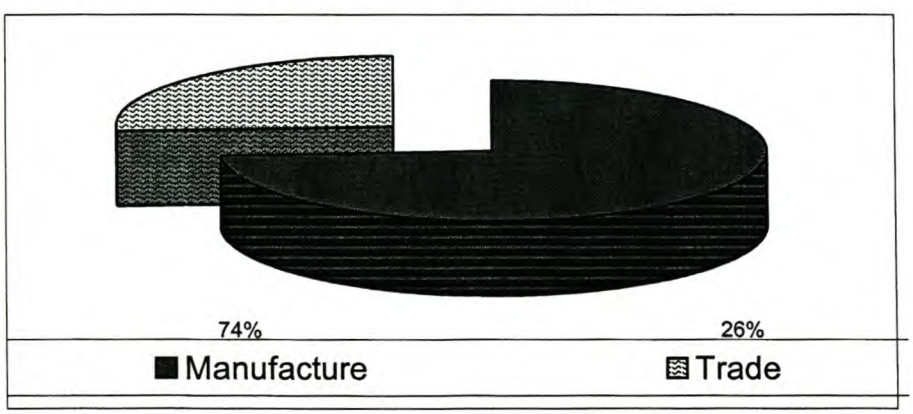
5.2 Characteristics of the respondents

The first section of the questionnaire had the objective of obtaining biographical information from the respondents. Of the 39 questionnaires handed out, responses were received from 24, yielding a response rate of 62 percent. One of them was rejected due to incompleteness. This means a sample of 23 individuals formed part of this research study. An analysis was then done to determine the characteristics of this sample groups. These biographical details include: Applicability of the sector, years of operation, number of employees, educational background of the respondent, position held in the current organization, ownership of the sector, and total years of employment/ownership of the sector.

5.2.1 Sector applicability

As shown in figure 5.1 almost three quarters (74%) of the respondents were from the manufacturing sector. Only 26% of trading firms could manage to complete the questionnaire and become part of this study.

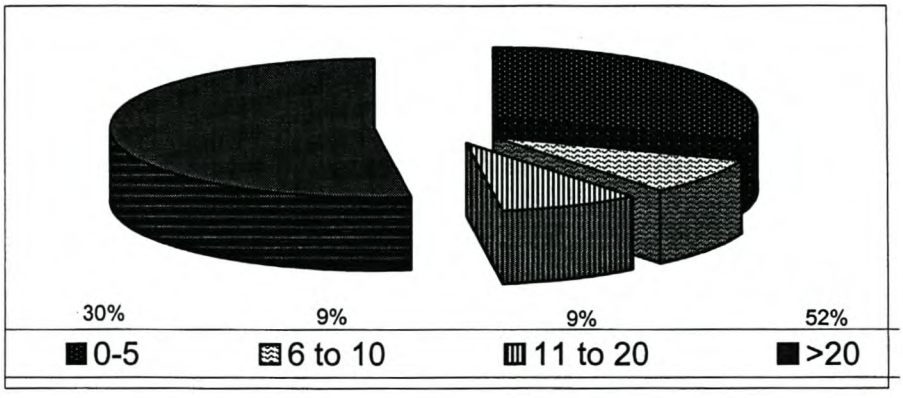
Figure 5.1: Sector applicable in the sample group



5.2.2 Years of operation

Figure 5.2 shows that the majority (52%) of the undertakings have been in operation for more than twenty years. Around one third (30%) of them are newly emerged organizations (5 years and less). Those firms that have been in operation from 6 to 10 as well as 11 to 20 years comprised a ratio of 18% of the total responses.

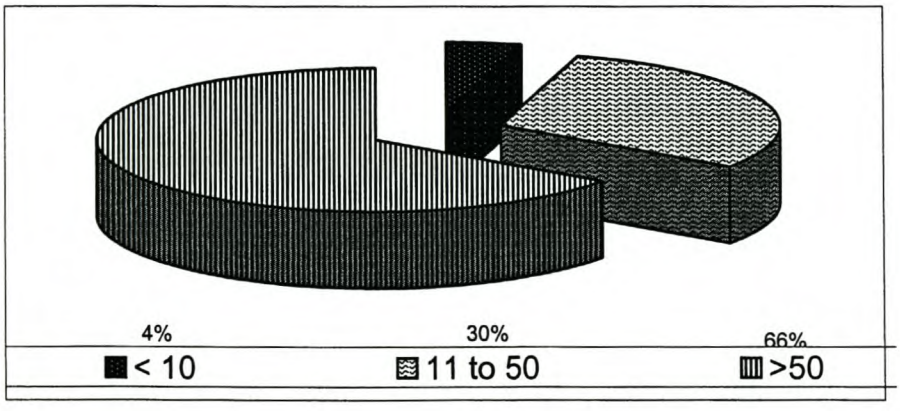
Figure 5.2: Years of operation



5.2.3 Number of employees

In the figure 5.3 below the researcher shows that the majority of the sample group (66%) had more than 50 employees in their organizations. Only 4% recruited less than 10 employees to run their business. The rest (30%) had between 11 and 50 employees.

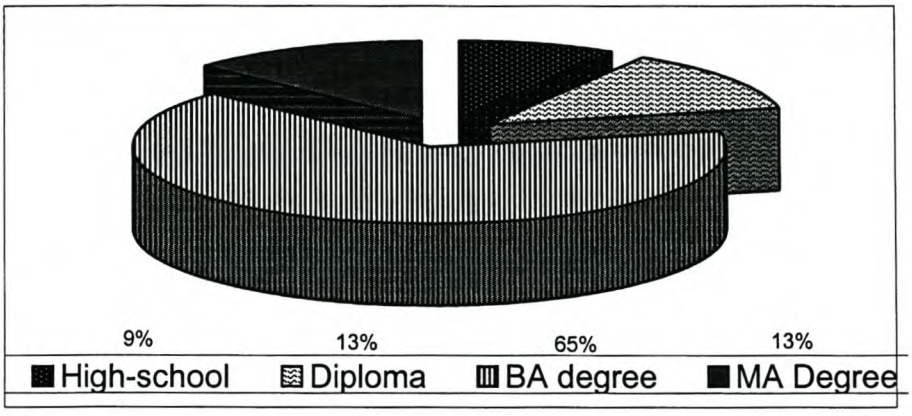
Figure 5.3: number of employees in each sample organizations



5.2.4 Educational background

Figure 5.4 shows that large number (65%) of individuals in the sample group had BA degrees. Only 9% did not have qualifications beyond high school level. The rest of the population had educational qualifications of either diplomas (13%) or MA degrees (13%).

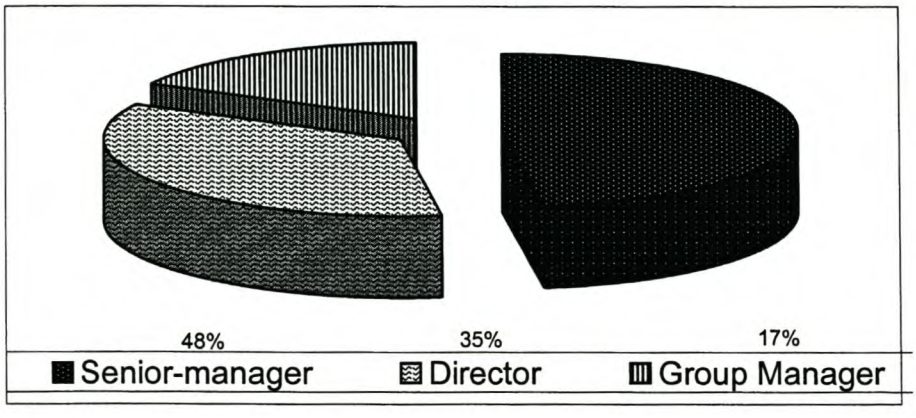
Figure 5.4: Educational background of respondents



5.2.5 Position held

In figure 5.5 the finding indicates that almost half (48%) of respondents held the position of senior manager, whilst 35% were directors and the rest (17%) were individuals appointed as group managers.

Figure 5.5: Position held by respondents



5.2.6 Ownership of the undertakings

Figure 5.6: Respondent's ownership status of the sample organizations

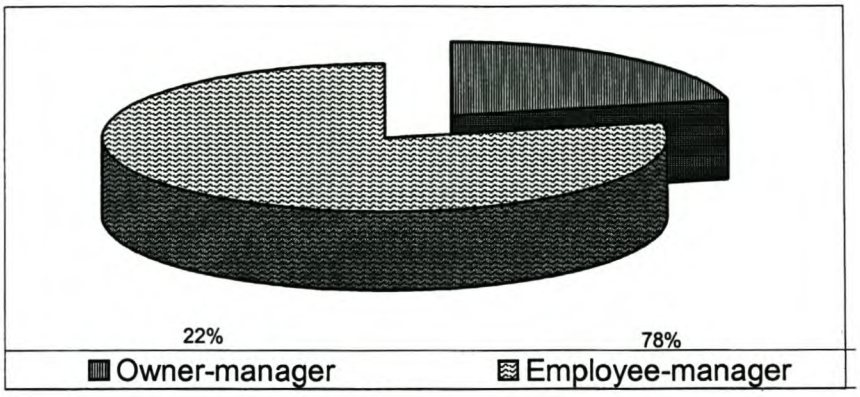
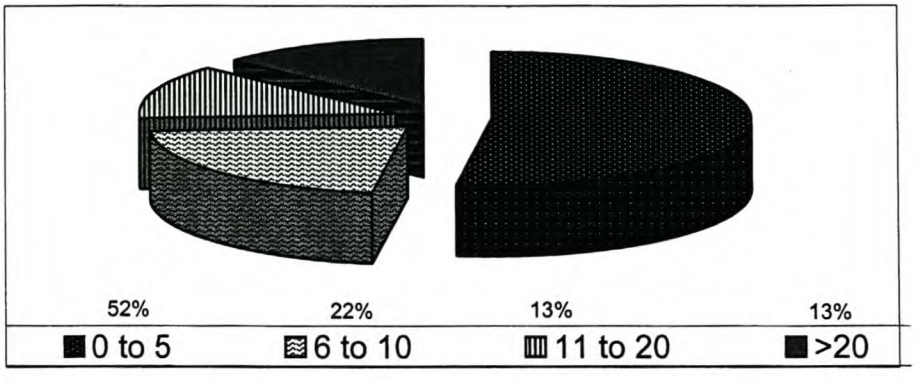


Figure 5.6 show that 78% of the respondents were employee-managers. The rest (22%) were managers who owned the organizations.

5.2.7 Years of experience in the enterprises

Respondents were distributed amongst all four categories of working experience in the sample organizations, as displayed in figure 5.7. The majority of the respondent (52%) had worked for the organization for less than five years. Only 13% had stayed for more than 20 years. Another 13% had between 11 and 20 years' working experience. The rest (22%) indicated that they had between 6 and 10 years' experience in that particular organization.

Figure 5.7: Individuals' years experience in the current job of the sample organizations



In summary, Figures 5.1-5.7 indicate that the majority of the respondents were from the manufacturing sector and the organizations have been operating for more than 20 years. Most

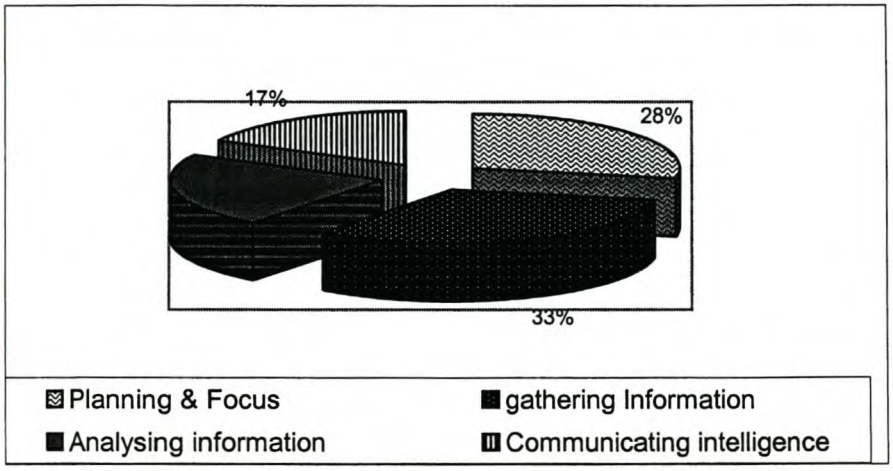
of the respondents were senior managers with BA degrees and higher educational qualifications who had worked for less than five years and did not own the organization.

5.3 Allocation of time and resources

5.3.1 Time allocated for competitive intelligence tasks

Figure 5.8 shows that firms of the sample organizations spent one-third (33%) of the total competitive intelligence time in gathering information, 28% in planning and focus, 22% in analysing the information, and 17% communicating the intelligence to end users.

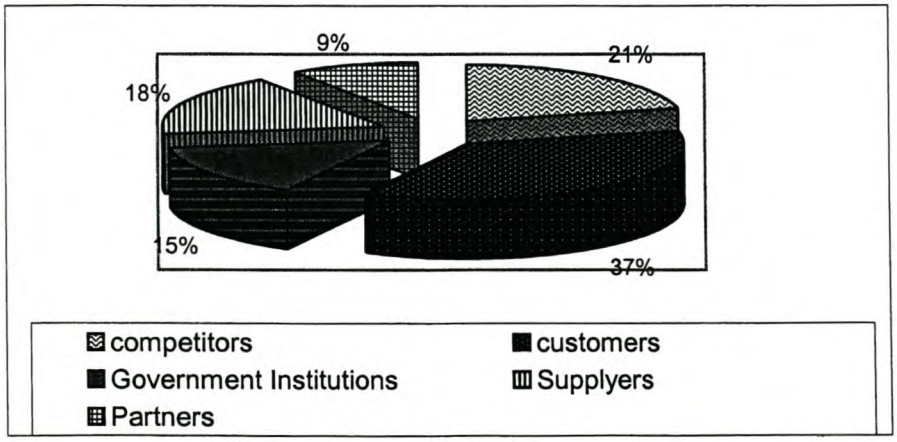
Figure 5.8: Competitive intelligence time spent in the cycle



5.3.2 Time spent on stakeholders

The sample organizations spend much intelligence time (37%) on dealing with customers.

Figure 5.9: Competitive intelligence time spent in stakeholders

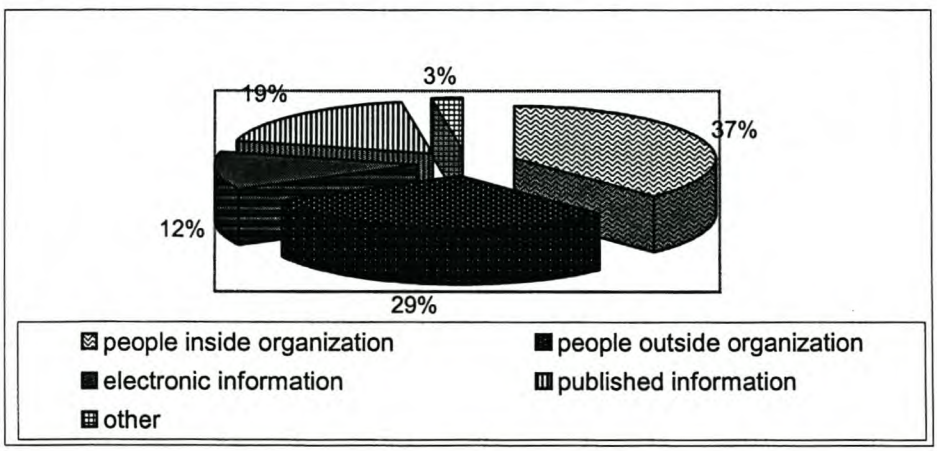


This is followed by competitors (21%), suppliers (15%), government institutions (15%), and partners (9%) as shown in figure 5.9.

5.3.3 Sources and amount of information

Figure 5.10 indicates that people inside organizations (37%) were the main source of information for the sample firms. Twenty-nine percent of information, on the other hand, came from people outside the organizations. While published materials contributed 19%, only 12% of the overall information gathered for the purpose of competitive intelligence practice came from electronic sources. The respondents mentioned that 3% of the information emanated from other sources.

Figure 5.10: Information gathered from various sources



In summary, much of the time allocated within the competitive intelligence cycle as depicted in figure 5.8 was on the phase of gathering and planning. Figure 5.9, on the other hand, indicated that organizations of the sample population involve more with customers and competitors. People from within and outside the respective organizations were the main source of information for the firms, as shown in figure 5.10.

5.4 Reliability of measuring instruments

Using the Statistical Package for the Social Sciences (SPSS) programme, the Cronbach Alpha Correlation Coefficient was utilized to calculate the reliability of the measuring instruments. This correlation coefficient reflects the degree of internal consistency of a test. According to the programme's user guide, Cronbach's Coefficient Alpha is based on the average correlation of items within a test, if those terms are standardized. If the items are not

standardized, it is based on the average co-variation among items.

The value of Cronbach Alpha Correlation Coefficient varies between 0 and 1. The closer the value is to 1, the more consistent the measurement and thus the more reliable the test; the closer the value is to 0, the less reliable the test. A Cronbach Alpha Correlation Coefficient of 0.5 is regarded as statistically significant (Huysamen, 1983:32). The Alpha Coefficient of the items in the questionnaire is presented in the following tables.

5.4.1 Reliability of organizational culture dimensions

Table 5.1 shows that the Cronbach Alpha values are very high for all dimensions, varying between 0.8815 and 0.9917.

Table5.1: Reliability of organizational culture dimensions

Dimension**	Cronbach Alpha Value
Employee involvement	.9917*
Human Resources Orientation	.8889*
Organization Focus	.9433*
Communication Flow	.8815*

(*Statistically significant; Cronbach Alpha > 0.5)

(** note that the dimensions 'Reward' and 'Trust' each consists of two items and therefore the Cronbach Alpha Coefficient was not calculated.)

The items within each of the dimensions of the organizational culture were therefore testing the specific dimensions that it was supposed to test. The conclusion can thus be drawn that the questionnaire is a reliable measuring instrument for the testing of the organizational culture.

5.4.2 Reliability of competitive intelligence components

The finding of table 5.2 indicates that a Cronbach Alpha value of between 0.5005 and 0.8815 was obtained for the questionnaire of competitive intelligence. Although this value is not as high as dimensions of organizational culture, it is greater than 0.5 and therefore it was indeed measuring the variable Competitive intelligence.

Table 5.2: Reliability of components of competitive intelligence

Dimension	Cronbach Alpha Value
Planning and focus	.7423*
Gathering the information	.5535*
Analysing the information	.5005*
Communicating the intelligence	.8815*

(*Statistically significant; Cronbach Alpha > 0.5)

5.5 Strength of organizational culture and competitive intelligence performance

With the information collected from the survey, a cultural and competitive intelligence strength index was constructed by computing the average response of each firm. According to this study, those firms that scored an average point between three and four were considered as having a culture of moderate strength, those with above four were considered as having a strong culture, while those below the average (three) were taken as weak. Table 5.3 shows each company's average scores of organizational culture and competitive intelligence. According to this, 14 (61%) of the 23 firms had moderate organizational culture, 2 (9%) strong culture, and the rest 7 (30%) showed weak culture.

Similarly, a low average score (below three) on each company indicates that little or no competitive intelligence activities were carried out, whilst a high score represents relatively extensive activities conducted by the organization. Table 5.3 shows that five companies (Mcm1, Ima8, Brr12, Atx16, and Brc21), which comprises 22% of the 23 firms, scored below average and categorized as poor performers. The rest (78%) were good performers in the informal competitive intelligence cycle, according to the findings. This indicates that Eritrean traders and manufacturers were doing well in terms of informal competitive intelligence practice. Thus, hypothesis 1, which says "unfavourable organizational culture impacts negatively on the practice of competitive intelligence by Eritrean manufacturers and traders" was not supported. In this study the label of performance is meant to imply relatively. That is, some organizations may not perform particularly well by universal standards, but taken within their context, they clearly outperformed the average or norm for that particular country.

Table 5.3: Each company's average scores of organizational culture and competitive intelligence

Companies	Average score of organizational culture	Average score of competitive intelligence
Atx16	2.13	2.5
Sbr14	2.45	3.04
Brc21	2.63	2.53
Ima8	2.63	2.74
Ins7	2.79	3.06
K099	2.91	3.24
Brr12	2.98	2.79
Mcm1	3	2.13
Brk11	3.02	3.33
Mtc13	3.2	3.65
Msl3	3.23	3.32
EKG18	3.42	3.53
EKF5	3.45	3.5
Coc19	3.49	3.88
Agc17	3.58	3.52
Frh23	3.64	3.62
Ans10	3.73	3.81
KBT6	3.77	3.74
Snf15	3.81	3.79
Soa20	3.83	4.5
Ngd2	3.99	4
Afw22	4.07	3.95
Rth4	4.12	4.23

In general, the findings revealed that Eritrean firms are weak in maintaining a central record of reliable sources of information (question 12.9 [appendix]: with average result score of 2.87), formal training on how to collect information (question 12.11: 2.26), classify the source (question 12.12: 2.74), and conducting an intelligence audit (question 12.13: 2.83). Moreover, the majority were not in a position to prepare profiles of their competitors regularly (question 13.1: 2.61), implement formal psychological models such as competitor management profiling (question 13.9: 2.39), and protect themselves against threat through counter-intelligence (question 13.10: 2.52).

On the other hand, the strength/weakness of organizational culture was evaluated in terms of the six dimensions selected for this study. As a result, all the sample firms scored relatively well in dimensions such as employee involvement (questions 15.1-15.4, with average score of 3.29), organizational focus (questions: 17.1-17.5, scored 3.64), reward (questions: 19.1 & 19.2, scored 3.41), and trust (questions: 20.1 & 20.2, scored 3.74) as depicted in table 5.4. The companies however indicated that there were weakness regarding human resources orientation (2.64- average result) such as employees' ignorance of competitive intelligence

(question 16.1: 2.65), lack of training in competitive intelligence (question 16.2: 2.3) and specifically on counter-intelligence (question 16.3: 2.35). Furthermore, communication flow (2.94-average result) such as the lack of internal printed publications (question 18.3: 2.26), and the unavailability of internal electronic platform (intranet), which are essential to encourage employees to exchange information (question 18.4: 2.13) were identified as bottlenecks to the flow of information within organizations.

Table 5.4: Average score of organizational culture dimensions

Dimensions	Average score
Human Resources Orientation	2.64
Employee involvement	3.29
Organization focus	3.64
Communication flow	2.94
Reward	3.41
Trust	3.74

5.6 The relationship between organizational culture and competitive intelligence in the sample organizations

A more widely used measure of the degree of association between two variables is the correlation coefficient. It is a unit-free measure of the strength and the direction of a linear relationship between two variables (Watsham & Parramore, 1997:66). In this study the Pearson Product Moment Correlation Coefficient (r) was implemented to measure the linear relationship between organizational culture and competitive intelligence. "In Pearson Product-Moment Correlation Coefficient, variables X and Y are related in a linear fashion. In this case X and Y are correlated if $\rho XY \neq 0$. If $\rho XY=0$, Y and X are said to be uncorrelated" (Bailey, 1971:551). The following is Pearson's Correlation Coefficient formula:

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}\sqrt{n\sum Y^2 - (\sum Y)^2}}$$

Where X = variable A, Y= variable B, and n= number of paired observations.

Table 5.5 shows the average scores of organizational culture and competitive intelligence of manufacturing companies. An index was computed by summing the scores to produce these averages. In order to establish what the relationship is, a Pearson correlation coefficient was computed between each organizational culture dimension's average scores and the competitive intelligence practice average scores.

Table 5.5: Average scores of organizational culture and competitive intelligence of manufacturing companies

Companies Code	Organizational Culture (X)	Competitive Intelligence (Y)	XY	X^2	Y^2
Mc1	3	2.13	6.39	9	4.5369
Ms3	3.23	3.32	10.7236	10.4329	11.0224
Rth4	4.12	4.23	17.4276	16.9744	17.8929
EKF5	3.45	3.5	12.075	11.9025	12.25
KBT6	3.77	3.74	14.0998	14.2129	13.9876
Ima8	2.63	2.74	7.2062	6.9169	7.5076
Brr12	2.98	2.79	8.3142	8.8804	7.7841
Mtc13	3.2	3.65	11.68	10.24	13.3225
Sbr14	2.45	3.04	7.448	6.0025	9.2416
Snf15	3.81	3.79	14.4399	14.5161	14.3641
Atx16	2.13	2.5	5.325	4.5369	6.25
EKG18	3.42	3.53	12.0726	11.6964	12.4609
Coc19	3.49	3.88	13.5412	12.1801	15.0544
Soa20	3.83	4.5	17.235	14.6689	20.25
Brc21	2.63	2.53	6.6539	6.9169	6.4009
Afw22	4.07	3.96	16.1172	16.5649	15.6816
Frh23	3.64	3.62	13.1768	13.2496	13.1044
TOTAL	**$\Sigma X = 55.85$**	**$\Sigma Y = 57.45$**	**$\Sigma XY = 193.926$**	**$\Sigma X^2 = 188.8923$**	**$\Sigma Y^2 = 201.1119$**

For instance, to find out the correlation between organizational culture and competitive intelligence of manufacturing companies in the sample population, the calculation was as follows:

$$r = \frac{17(193.926) - (55.85)(57.45)}{\sqrt{17(188.89230 - (55.85)^2}\sqrt{17(201.1119) - (57.45)^2}}$$

$r = 0.8449398$

t-Critical (degree of freedom = n-2 = 17-2 = 15) at five percent of significance, i.e. $\alpha = 0.05$, then $t_{0.05(15)} = 2.131451$

The t-calculated value is

$$t = \frac{r}{\sqrt{\frac{1-r^2}{n-2}}}$$

$$= \frac{0.8449398}{\sqrt{\frac{1-(0.8449398)^2}{17-2}}}$$

$= 6.118291$

Since t-calculated = 6.118291 is greater than t-critical = 2.131451, we conclude that there is a high relationship between organizational culture and competitive intelligence in the case of manufacturing companies. Field (2004) says "if the value of the correlation coefficient is greater than the positive value of the critical rho value for a one-tailed test, then the correlation is positive, using a 5% level of significance".

Similarly, the correlation between organizational culture and competitive intelligence of both trade and manufacturing sectors was computed using the SPSS package to determine their relationship as it is depicted in the table below (5.6). The results indicate that there was a high correlation (0.974) in the field of the trading sector between independent and dependent variables. A high correlation (0.845) is displayed for the manufacturing industry in the same table. The overall result of traders and manufacturers in the sample population was also correlated as a high degree (0.851). Acasta (2004) indicated that the level of correlations is stated according to the following margins: 0.9 to 1 very high correlation; 0.7 to 0.9 high correlation; 0.5 to 0.7 moderate correlation, 0.3 to 0.5 low correlation; and 0.0 to 0.3 little if any correlation. In general, there was a high positive correlation between the variation of organizational culture and the variation of competitive intelligence. In other words, firms with

higher levels of cultural strength performed better than those with a comparably weak culture.

Table 5.6: Correlations between organizational culture and competitive intelligence in each of the trading and manufacturing sectors in the sample population

Sectors	Pearson's Correlation Coefficient
Manufacturers only	.845**
Traders only	.974**
The whole sample	.851**

**.Correlation is significant at the 0.01 level (1-tailed).

5.7 Relationship between competitive intelligence and dimensions of organizational culture

Table 5.7 contains a list of the abbreviated items used in figure 5.11.

Table 5.7: List of the abbreviated items

Abbreviation	**Meaning**
Com Int	Competitive Intelligence
Emp Inv	Employee Involvement
Hmn Rs	Human resources
Org Fc	Organizational Focus
Com Fl	Communication Flow
Rwd	Reward
Trs	Trust

Another way to examine the relationship between organizational culture and competitive intelligence of the sample organizations is to look at the correlations between the six selected dimensions of organizational culture (employee involvement, human resources, organizational focus, communication flow, reward, and trust) and competitive intelligence as a single entity. The result obtained from this correlation is summarized in figure 5.11.

This figure displayed that there was a low correlation (0.486) between employee involvement and competitive intelligence. On the other hand dimensions such as human resources (0.682),

reward (0.662) and trust (0.696) were moderately correlated. Communication flow (0.755) and organizational focus (0.826) were highly correlated with the competitive intelligence practice of the sample organizations. All the correlations were significant at the 0.01 level (1-tailed). "One-tailed tests should be used when there is a specific predicted direction to the hypothesis being tested" (Field, 2004). A positive correlation between organizational culture and competitive intelligence is the predicted direction of this study.

Figure 5.11: Correlations between six dimensions of organizational culture and competitive intelligence

Correlations

		Com Int	Epl Inv	Hmn Rs	Org Fc	Com Fl	Rwd	Trs
Com Int	Pearson Corr	1	.486**	.682**	.826**	.755**	.662**	.696**
	Sig. (1-tailed)	.	.009	.000	.000	.000	.000	.000
	N	23	23	23	23	23	23	23
Epl Inv	Pearson Corr	.486**	1	.541**	.404*	.703**	.291	.401*
	Sig. (1-tailed)	.009	.	.004	.028	.000	.089	.029
	N	23	23	23	23	23	23	23
Hmn Rs	Pearson Corr	.682**	.541**	1	.665**	.588**	.604**	.696**
	Sig. (1-tailed)	.000	.004	.	.000	.002	.001	.000
	N	23	23	23	23	23	23	23
Org Fc	Pearson Corr	.826**	.404*	.665**	1	.648**	.581**	.772**
	Sig. (1-tailed)	.000	.028	.000	.	.000	.002	.000
	N	23	23	23	23	23	23	23
Com Fl	Pearson Corr	.755**	.703**	.588**	.648**	1	.645**	.544**
	Sig. (1-tailed)	.000	.000	.002	.000	.	.000	.004
	N	23	23	23	23	23	23	23
Rwd	Pearson Corr	.662**	.291	.604**	.581**	.645**	1	.505**
	Sig. (1-tailed)	.000	.089	.001	.002	.000	.	.007
	N	23	23	23	23	23	23	23
Trs	Pearson Corr	.696**	.401*	.696**	.772**	.544**	.505**	1
	Sig. (1-tailed)	.000	.029	.000	.000	.004	.007	.
	N	23	23	23	23	23	23	23

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

5.8 Conclusion

The purpose of this chapter was to report and to provide a summary of the results achieved in this study. According to the data collected, the majority of the sample organizations performed well in their competitive intelligence practice. Moreover, the result indicated that there was a significant correlation between organizational culture and competitive intelligence

practice. This shows strong support for the predicted hypothesis of this study that there is a positive relationship between the independent and dependent variables. But, the hypothesis that unfavourable organizational culture impacts negatively on the practice of competitive intelligence by Eritrean manufacturers and traders was not supported as it was put-forth.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This study investigated the relationship between organizational culture and competitive intelligence using a reliable measuring instrument. The research also attempted to investigate the strength of these two variables by comparing each sample's average score as well as by means of correlation between the six dimensions of organizational culture and the practice of competitive intelligence as a whole. Given the results of this study as presented in the preceding chapter, the following conclusions are made:

6.2 Demographic makeup

The majority of the respondents were senior employee managers with high educational qualifications. It is believed that the high hierarchical level of respondents enhanced the validity of the result of this study since they are more likely to be familiar with organizations' overall activities.

6.3 Allocation of time and resources

According to the finding, respondents spend most of their time in the gathering and planning phases of the competitive intelligence cycle. When we look at the high percentage of the score on gathering, one can say that Eritrean manufacturers and traders are exposing themselves to information overload. As the literature review of this study made clear, organizations that have a notion of "gathering all information they get" will fail in addressing the need of end users for actionable intelligence. Many researchers believe that analysis, which is the most important part of the competitive intelligence process, should be allocated a larger percentage of time in the process of competitive intelligence. If we study the result of the sample enterprises of this paper, however, only 22% of the total time was allocated to analysis. Although these figures are almost similar to results identified in the literature on competitive intelligence, Cook & Cook (2000:26) suggest that around 35% of the entire time devoted to competitive intelligence should be spent doing analysis.

On the other hand, the majority of the firms had informal intelligence focusing mainly on customers and competitors. The findings revealed that government institutions, which are

believed to be sources of low-cost and valuable data, were not preferential partners to the companies when it comes to competitive intelligence.

The most valuable source of information to the majority of the respondents was people from within and outside the enterprises. Here, using people as a main source of information can be seen as positive trend. It is positive because, first it is primary information and rich in content; and second the involvement of people in the giving and receiving of information is the core element for the creation of knowledge and intelligence. However, equally important information sources such as published materials and electronic information were not widely exploited by the companies to enhance their information repository.

6.4 Strength of organizational culture and competitive intelligence performance

The findings showed that the majority of the respondents had a culture of moderate strength. Only 30% of the enterprises demonstrated that they lack strong organizational culture. On the side of the six organizational dimensions, the results identified that human resources orientation and communication flow were the weakest dimensions in all sample firms. This suggested that the enterprises lack skilled manpower who can understand the overall activities of the competitive intelligence process. Similarly, the finding hinted at the fact that departments and individuals of those organizations lack a medium with which to share information among each other. On the positive side, it entails that at the organizational level there is a positive attitude towards the importance of competitive intelligence. There is trust and a willingness to participate at employees' level as well.

Except for a few (22%), the majority of Eritrean undertakings performed informal competitive intelligence well according to the findings. In other words, there is a positive attitude and willingness in place for competitive intelligence practice in the Eritrean context if initiatives are taken to make competitive intelligence formal and systematic. Thus, hypothesis 1, which stated that unfavourable organizational culture impacts negatively on the practice of competitive intelligence by Eritrean manufacturers and traders, was not supported.

6.5 Relationship between competitive intelligence and dimensions of organizational culture

Except for the employee involvement, which showed a low correlation, the Pearson Product Moment Correlation Coefficient indicated that all the dimensions were significantly

correlated. Hence, the anticipated sub-hypotheses that there is a significant relationship between employment involvement and competitive intelligence were not supported. This means that managers might not wish to leave employees alone to conduct the task of competitive intelligence. Instead, they may think that it is more effective if there is an intervention of others such as the managers themselves to move employees forward to participate in the process.

The positive significant result of the other five dimensions on the other hand, supported the predicted hypothesis. The empirical result asserted that there is a positive relationship between the selected dimensions of organizational culture and competitive intelligence practice. These findings are also consistent with those of other studies, which found that organizational culture can be related to improved performance.

6.6 Recommendations

Based on the findings and conclusions, the following recommendations can be made:

6.6.1 Time allocation

In our contemporary world, knowing when to stop gathering information is just as important as how to get that information. Unsystematic ways of collecting information always lead to information overload. Although one might have important information at hand, if that information is not found and implemented when needed, it is useless. In the light of this, Eritrean firms have to allocate more time to the phase of analyses in the cycle of competitive intelligence, and be focused when they collect information. It is through analysis that information or knowledge transforms into intelligence.

6.6.2 Government institutions as resources of information

The finding indicated that Eritrean organizations were not in a position fully to exploit government institutions as resources of competitive intelligence information. Many writers agree that despite a seemingly worldwide reputation for inefficiency and frustrating bureaucracy, government offices do manage to collect information properly and effectively. Hence, traders and entrepreneurs should exert an effort to dig out valuable data from the government's information repository.

Government institutions, on the other hand not only have to open their door to provide

information, but should also use their influential power to take initiatives to promote the implementation of formal and systematic competitive intelligence practice in Eritrea. Calof & Viviers (2001:66) state that governments in general have four primary assets, such as outreach potential to reach different companies, skilled employees, vast information, and financial resources which can be used to enhance competitive intelligence. This potential can be used to develop the following three competitive intelligence roles: building awareness, developing competitive intelligence resources through training and financial support, and enhancing their information product through the wealth of information that exists within the government database.

6.6.3 Secondary information resources

We have learned from the literature review that secondary resources of information such as published materials and electronic information are equally important as primary resources. Due to the advent of advanced electronic media, nowadays, the accessibility and availability of such information is simplified in an unprecedented manner. Moreover, secondary sources are cheaper when it comes to collecting information. Therefore, one can safely recommend that Eritrean entrepreneurs should explore printed and electronic media such as Internet to collect a wealth of information and to have interconnection with the globalized world at prices they can afford.

6.6.4 Human resources

It is futile attempt to take initiatives to set formal competitive intelligence without having employees who understand its importance. Organizations therefore, must train their personnel how to exploit opportunities and defend against threat (counter intelligence), if they wish to create a competitive edge.

6.6.5 Information sharing

In order for the system of competitive intelligence to work, information must be shared among individuals and departments within an organization. As part of their normal work, employees usually receive or exposed to a daily stream of information about people and events. Firms therefore, should arrange a platform of communication and encourage their

people to allow others to have access to any information that comes into their unit. Unless there is an open system for the free flow of information in place, it is difficult to 'arm' an organization with the power of competitive intelligence.

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APPENDIX: Questionnaire and total score

Instructions

The responses to this survey will be used exclusively for the purposes of primary research by an Eritrean postgraduate student working towards an MPhil in information and knowledge management study at the University of Stellenbosch, South Africa. None of the information being sought is intended to identify an individual/organization by person and all data gathered will be kept in strict confidence.

Section A: Demographic details:

Please mark the appropriate box with a cross (x):

1	Sector Applicable	Manufacture	Trade	Other		
		17	6			
	Percent	**74**	**26**			
2	Year of operation	0-5	6 to 10	11 to 20	>20	
		7	2	2	12	
	Percent	**30**	**9**	**9**	**52**	
3	Number of employees	< 10	11 to 50	>50		
		1	7	15		
	Percent	**4**	**30**	**66**		
7	Educational background	Elementary	High-school	Diploma	BA Degree	MA Degree
			2	3	15	3
	Percent		**9**	**13**	**65**	**13**
8	What position do you hold?	Senior-manager	Director	Group Manager	Other	
		11	8	4		
	Percent	**48**	**35**	**17**		
9	Ownership of the sector	Own & manager	Employee-manager	Other		
		5	18			
	Percent	**22**	**78**			
10	For how long have you been an employee/owner of this sector?	0 to 5	6 to 10	11 to 20	>20	other
		12	5	3	3	
	Percent	**52**	**22**	**13**	**13**	

Section B: Competitive intelligence practices

Please indicate to what degree you agree with the following statements.

Use the following key:

1 = Strongly disagree
2 = Disagree
3 = Uncertain
4 = Agree
5 = Strongly agree

11: Planning and focus

		Strongly Disagree 1	Disagree 2	Uncertain 3	Agree 4	Strongly Agree 5	Average
11.1	We plan ahead of the time to identify the type of information we need.	0	4	6	52	30	4.00
11.2	We explicitly define why the information is needed and how it will be used.	0	6	9	40	35	3.91
11.3	The goals of our needs are specific and non amorphous	0	2	15	32	45	4.09
11.4	We proactively communicate the company's intelligence needs to employees	1	8	12	36	25	3.57
11.5	We have convenient ways for employees to report observations & information	1	6	12	48	15	3.57
11.6	We regularly discuss to identify our intelligence requirements	0	12	6	32	35	3.70
11.7	We are concerned to understand the plans and intentions of not only our key competitors but also of key allies and partners, such as suppliers, distributors, investors and collaborators.	0	4	9	32	50	4.13
	Total Average						**3.85**

12: Gathering the information

		Strongly Disagree 1	Disagree 2	Uncertain 3	Agree 4	Strongly Agree 5	Average
12.1	We gather information on regular bases.	2	10	9	20	40	3.52
12.2	Gathering reliable information help us to stay ahead of our competitors.	0	2	6	36	55	4.30
12.3	Our contacts outside the organisation and staff are our most important sources of information.	0	4	15	24	50	4.04
12.4	We use legal as well as relevant collection methods.	0	8	18	36	20	3.57
12.5	All information collected is checked for accuracy and validated by at least one other source.	0	12	6	52	10	3.48
12.6	We train our employees every time they go to trade shows, exhibitions, conventions, and so forth about what type of information they should look for.	4	8	18	20	20	3.04
12.7	Results from exit interviews/job interviews are used in our intelligence system.	2	16	9	28	15	3.04
12.8	We only try to collect available information on our competitors that are relevant to the intelligence objectives (we focus on those issues of highest importance).	1	10	15	36	15	3.35
12.9	Our company maintains a central record of reliable sources of	2	14	24	16	10	2.87

	information.						
12.10	We conduct intelligence projects regardless of whether we have been asked to do it.	0	14	15	36	10	3.26
12.11	Our employees have received formal training on how to collect information (e.g. an internet searching course or an interviewing course).	5	18	21	8	0	2.26
12.12	After collecting information whether it is from a person or from a documented source (e.g. the internet) we classify the source.	2	16	24	16	5	2.74
12.13	We conduct an intelligence audit (identify and catalogue information already exists within a firm such as what people know, what reports they have, publications, etc).	2	16	21	16	10	2.83
12.14	We use mainly secondary sources of information (public literature, analysts' reports, newspapers, libraries, databases, consultant reports, government reports, etc.) to learn about our key competitors.	1	16	12	40	0	3.00
12.15	*The following tools and techniques are effective in gathering information?*						
12.15.1	Online databases	2	6	24	24	20	3.30
12.15.2	Interview	1	4	24	36	15	3.48
12.15.3	Observation of competitors sites	0	2	18	52	15	3.78
12.15.4	Reverse engineering of competitor's products and services	2	10	27	24	5	2.96
12.15.5	Trade fair and Exhibition	1	12	3	48	15	3.43
12.15.6	workshops	1	8	12	44	15	3.48
12.16	*The following information sources are easy to access*						
12.16.1	competitors	3	16	9	36		2.78
12.16 .2	suppliers		10	15	52		3.35
12.16 .3	customers		10	12	56		3.39
12.16 .4	public offices (government offices)	2	20	6	36		2.78
12.17	Internet is effective in providing relevant information	1	2	15	40	30	3.83
12.18	Print media is effective in providing relevant information	0	2	24	44	15	3.70
12.19	people are effective in providing relevant information	0	0	18	56	15	3.87
12.20	government representatives (e.g. embassies) abroad are effective in providing relevant information	0	12	18	36	10	3.30
12.21	Trade fair/exhibition and meetings are important in providing relevant information	1	0	12	52	25	3.91
12.22	We use mainly primary sources of information (people who are in a position to provide intelligence) to learn about our key competitors.	1	10	24	32	5	3.13
	Total Average						**3.12**

13: Analysing the information

		Strongly Disagree 1	Disagree 2	Uncertain 3	Agree 4	Strongly Agree 5	Average
13.1	Our company regularly prepares profiles of our competitors.	2	22	15	16	5	2.61
13.2	Our competitive intelligence capability is a strategic management tool and serves the decision makers.	1	6	21	44	5	3.35
13.3	The intensity of competition in our market / industry (home country) is high.	4	8	15	36	5	2.96
13.4	Our market share in our home country's market / industry is high	0	2	0	48	50	4.35
13.5	Our company continuously and systematically monitors our technologies globally to determine whether new competitors or technology substitutes are emerging.	0	6	12	48	20	3.74
13.6	We monitor and assess the activities and plans of organisations and groups (such as regulatory agencies or NGOs) whose view of our company could affect us.	1	12	15	32	15	3.26
13.7	Our company produces assessments that address several possible outcomes of our competitors' actions and that identify the threats and opportunities those outcomes present for our company.	1	12	21	24	15	3.17
13.8	Our company analyses our competitors' plans and strategies to predict and anticipate their actions.	2	14	9	36	10	3.09
13.9	Our company uses formal psychological models such as competitor management profiling.	5	16	21	8	5	2.39
13.10	Our CI activities specifically include counter-intelligence, aimed at assessing the success of CI efforts directed against us.	4	18	15	16	5	2.52
13.11	The results from our intelligence process influence our strategy and direction.	1	14	12	24	25	3.30
13.12	We believe that competitive intelligence can be used to create a competitive advantage.	0	0	3	68	25	4.17
13.13	We have a long-term competitive intelligence plan.	2	16	9	28	15	3.04
13.14	Our company is proactive against outside threats.	0	8	21	32	20	3.52
13.15	Our company maintains a network of human contacts outside the company that we call on to answer senior management's questions in a timely and credible fashion.	1	10	33	16	10	3.04
13.16	Our company identifies who its customers and market segment are.	0	2	6	52	35	4.13

13.17	We properly scan external environment to meet or exceed customer's expectations regarding to product quality, service quality and price as defined by customers, not by the firm itself	1	6	18	40	15	3.48
13.18	We regularly identify our Core competence (capabilities, skills, and technology) to create low cost or differentiated customer value.	0	4	12	52	20	3.83
13.19	Our company monitor the characteristics of the societal context in which the organization exists.	0	6	24	40	10	3.48
	Total Average						**3.34**

14: Communicating the intelligence

		Strongly Disagree 1	Disagree 2	Uncertain 3	Agree 4	Strongly Agree 5	Average
14.1	Our employees regularly report information about our competitors to appropriate managers.	0	14	12	40	10	3.30
14.2	Senior managers use CI regularly in their planning and decision-making.	0	16	12	44	0	3.13
14.3	Our staffs distribute intelligence findings only to those who are authorised to see them.	0	14	21	36	0	3.09
14.4	Key decision-makers are regularly surveyed to verify that the intelligence products produced for them satisfy their needs and provide value.	2	14	18	24	10	2.96
14.5	We evaluate our competitive intelligence results.	2	10	15	32	15	3.22
	Total Average						**3.14**

Section C: Organizational culture

15: Employee involvement

		Strongly Disagree 1	Disagree 2	Uncertain 3	Agree 4	Strongly Agree 5	Average
15.1	We have dedicated staff and resources for the organisation of competitive intelligence information.	2	14	18	32	0	2.87
15.2	Our employees actively seek out information to respond quickly to customers and partners?	0	12	21	32	10	3.26
15.3	Our employees take self initiative to improve the company's overall performance.	0	2	18	52	15	3.78
15.4	Our employees perceive themselves as part of the organization's decision-making body.	2	2	30	32	10	3.30
	Total Average						**3.29**

16: Human resources orientation

		Strongly Disagree 1	Disagree 2	Uncertain 3	Agree 4	Strongly Agree 5	Average
16.1	Most employees understand exactly what competitive intelligence is.	3	18	15	20	5	2.65
16.2	We make intelligence training available to all our employees.	2	30	9	12	0	2.30
16.3	Every employee is given counterintelligence training.	4	22	12	16	0	2.35
16.4	Our employees are aware of the competitive intelligence methods used by our competitors.	1	18	18	20	10	2.91
16.5	Our employees understand clearly that our proprietary information and intellectual property should not be disclosed, and what to do if they become aware of potential inappropriate disclosure or access.	2	12	18	32	5	3.00
	Total Average						**2.64**

17: Organization focus

		Strongly Disagree 1	Disagree 2	Uncertain 3	Agree 4	Strongly Agree 5	Average
17.1	Our company recognises CI as a legitimate and necessary activity for business.	0	0	21	44	25	3.91
17.2	Our organizational culture encourages information sharing.	0	8	27	32	10	3.35
17.3	Our company encourage openness in using information.	0	4	9	64	10	3.78
17.4	Information on company performance presented to employees continuously to improve their effectiveness.	1	8	12	48	10	3.43
17.5	Our intelligence activities have a great support from the senior company management.	0	4	12	56	15	3.78
	Total Average						**3.64**

18: Communication flow

		Strongly Disagree 1	Disagree 2	Uncertain 3	Agree 4	Strongly Agree 5	Average
18.1	Our employees do not frequently keep information to themselves.	2	6	27	32	5	3.13
18.2	We don't have lack of communication between departments.	0	4	6	60	20	3.91
18.3	We have internal publications (print media) to encourage our employees exchange information.	4	22	21	0	5	2.26
18.4	We have internal electronic platform (intranet) to encourage our employees exchange information.	6	24	6	8	5	2.13

18.5	Our employees share information within teams, across functions and with customers and suppliers, as appropriate.	1	12	12	40	10	3.26
	Total Average						**2.94**

19: Reward

		Strongly Disagree 1	Disagree 2	Uncertain 3	Agree 4	Strongly Agree 5	Average
19.1	Employees encouraged expressing their information needs.	0	2	12	48	30	4.00
19.2	Our company has incentives to encourage employees to report their competitive observations and information.	1	18	18	28	0	2.83
	Total Average						**3.41**

20: Trust

		Strongly Disagree 1	Disagree 2	Uncertain 3	Agree 4	Strongly Agree 5	Average
20.1	Our employees trust one another to share information about process or product failure?	0	4	9	68	5	3.74
20.2	Our employees trust the company's database and formal resources of information.	0	6	9	56	15	3.74
	Total Average						**3.74**

Section D: Percentage of allocation of time in all sectors

21	breakdown of the percentage of "intelligence" time in the process of competitive intelligence	Percent
21.1	Planning and Focus	28%
21.2	Gathering the information	33%
21.3	Analysing the information	22%
21.4	Communicating the intelligence	17%

22	percentage of "intelligence time" spent on the following targets	Percent
22.1	competitors	22%
22.2	customers	38%
22.3	Government Institutions	16%
22.4	Suppliers	19%
22.5	Partners	10%

23	Percentage of information you get from each of the following sources	Percent
23.1	people inside an organization	40%
23.2	people outside an organization	31%
23.3	electronic information	12%
23.4	published information	19%
23.5	other	3%

I thank you for your time and effort to complete this questionnaire